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BEST STORIES
(National Life)

A THIRD READER

The Child's Own Way Series

BY
MARJORIE HARDY
Primary Teacher
University of Chicago Elementary School

Original Stories by
HELEN TEETERS

Illustrations by
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A Happy Family
of Today



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This is the Smith family. The postman has just brought a letter from Aunt Martha who is visiting in countries across the ocean. Aunt Martha writes that she is coming home soon.



This is Mrs. Smith. She is a very busy woman. Every Monday morning, Mrs. Smith washes. She uses a washing machine. On Tuesday she irons with an electric iron. She cooks for the family every day on a fine gas stove. Some days she sews for the family.



This is Sally Smith. She is doing an errand for her mother. She is mailing a letter to Aunt Martha.



This is Billy Smith. He is watching an airplane.



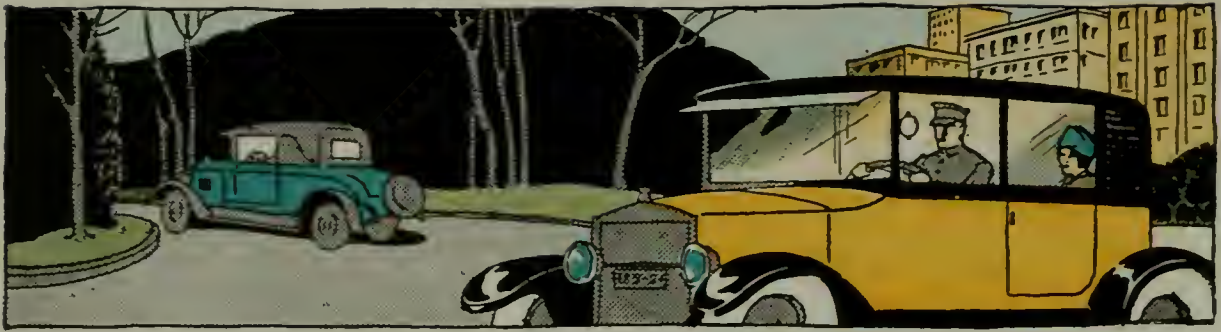
This is Mr. Smith. He is a very busy man. He is working in his office. A messenger boy has just brought him a telegram from Aunt Martha. Mr. Smith is going to telephone Mrs. Smith to tell her that Aunt Martha will arrive the next day.



This is the boat that brought Aunt Martha across the ocean. It is the largest boat in the world. It is 956 feet long. It has nine decks. It can carry five thousand people. It takes five days for it to come from Europe to America.



This is the train that is bringing Aunt Martha to the town where the Smith family lives. It is a very fast train.



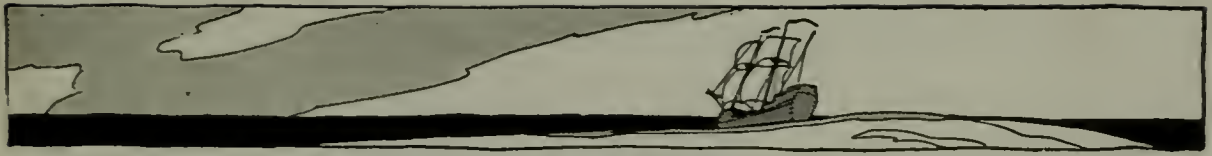
This is the taxi that is bringing Aunt Martha to the Smith home.



Mr. and Mrs. Smith, Billy and Sally and Aunt Martha are going to a moving-picture show. Should you like to hear the story that tells about the pictures that they saw?







THE BREWSTER FAMILY COMES TO AMERICA

For two months the little ship *Mayflower* had fought her way through the waves of the great Atlantic Ocean. Often the storms tossed the little ship and the waves dashed over her high deck. At such times, the hundred people on board thought that they should surely be lost.

They were poor people who had suffered a great deal. Now they were on their way to America. Every one said that America was a wonderful new country where they could be free; so they were thankful to have any kind of ship even if it were tossed in the storms.

One day when the sky was clear and the *Mayflower* skimmed over the water like a bird, a group of children stood on the deck, looking out over the waters. Some of them were fifteen or sixteen years of age; others of them were much younger. Nearly all of them looked tired and sad. They wished that the long, tiresome journey would soon come to an end.

One of the boys, Bart Allerton, was cutting a notch in a long stick with his knife. "This makes sixty-five notches," he said, holding the stick up for the other children to see — "one notch for every day that we've been sailing on the *Mayflower*."

"If we don't reach land soon, you'll have to get another stick, Bart," said his best friend Love Brewster.

"I think we shall never get off this water," said John Billington, who was a little older than Bart or Love. "We are lost in the great ocean."

By this time, some of the little girls began to



cry, and Priscilla Mullins, a pretty girl about sixteen years of age, scolded John. "Hold your tongue, John Billington," said she. "You will be ashamed of your teasing when I tell you the secret I have just heard."

The little girls stopped crying in their eagerness to hear what Priscilla had to tell. "Do tell us, dear Priscilla," said Bart's little sister, Remember Allerton. "Is it that we are going to have milk to drink again? We've not had a drop of milk for a long time."

"Or a good roast of mutton for dinner?" asked Bart. "I'm tired of salt meat."

"Or a pudding with lots of plums in it?" asked Wrestling Brewster, Love's seven-year-old brother.

"What greedy children you are!" answered Priscilla. "Not one of you guessed right. My secret is something much better than any of your guesses."

"Perhaps it's my new baby brother," said little Damaris Hopkins. "He is something much better, I know."

"Yes, he is," Priscilla agreed, smiling at Damaris. "Oceanus is a fine little brother, but



we've all seen him and what everyone knows is not a secret. Listen while I tell you my secret."

"Early this morning before we were up, Captain Jones and his crew found something floating in the sea. Guess what it was?"

"A big fish?" asked Bart.

"No," Priscilla answered, "they found a big branch from a sassafras tree. It had been freshly cut from the tree."

Most of the children looked disappointed when they heard Priscilla's secret. "I don't think that an old sassafras branch is nicer than a plum

pudding," said Wrestling Brewster. "We can't use the sassafras unless we get sick; and I don't like sassafras tea, anyway."

But Love Brewster began jumping up and down and throwing his gray cap high into the air when he heard Priscilla's words. "Our journey is almost over. We must be near the land where the sassafras trees grow. We shall soon see America," he said in one breath.

"Yes," said Priscilla, "we must be near land for the branch had not floated far. (Captain King says that we may reach America today."

Then the other children clapped their hands and began jumping around on the deck with Love. They agreed that Priscilla's secret was a good one.

"If we find sassafras trees in the new land," Priscilla said when the children were again quiet, "we shall be very lucky. Sassafras sells for a high price in England."

"And Father says that perhaps we can get beaver and otter skins to sell in England, too," said Love.

"Shall we all be rich then, Priscilla?" asked Wrestling.

"No, Wrestling," Priscilla answered soberly. "Our fathers, you know, are poor men. They did not have the money to get us and the *Mayflower* ready to come to America; so they borrowed the money from some rich merchants in England. Now we must work for seven years at fishing or farming or trading with the Indians. At the end of the seven years we must give half of all we have to the English merchants who supplied the money."

"Then we shall still be poor," said Bart. "I wish we had not made the bargain with the English merchants."

"We should be thankful, Bart Allerton," Priscilla answered, "that we could come to the new land at all. Mother says that we can at least be our own masters and worship God in our own way, and that we must all work hard to help pay off the debt."

Just then a sailor high in the mast called, "Land! land! land!"

"Where is land?" cried the children, jumping up from their circle about Priscilla.

"Where is land?" cried their parents rushing out from the ship's cabin.



“Right ahead of you,” called the sailor from his high perch. But they could see only a gray line in the distance.

Master Brewster held Love and Wrestling high on his shoulder so that they could have their first sight of the new land. “Thank God,” he said, “by sundown we shall be at the shores of America.”

“And may it please God,” Mistress Brewster added, “that we shall soon have our new homes there.”

THE NEW HOME

PART I

Love and Wrestling Brewster were wondering how soon they could go on shore. They were tired of the ocean and also of the little *Mayflower*.

"The men must find out what the land is like before we unload our goods and all go ashore," their mother said. "We must build our town in a place with rich soil and plenty of wood and good water. Perhaps, too, there will be unfriendly Indians who already own the land and will not let us settle here; so we may have to sail further."

"I hope that this *is* a good place for a town," said Wrestling, "and that the men won't see any Indians. Then we can begin living ashore right away, can't we, Mother?"

"I fear we shall have to live on the *Mayflower* for many more days, Wrestling," Mistress Brewster answered. "It will take some time to build houses. The men will have to cut down trees and build log houses to shelter us from the cold winds and rains. We shall just have to be thankful that we're not still tossing around on the ocean."



The next day about sixteen of the men climbed down into a small boat and went ashore to explore the new land. From the *Mayflower* the rest of the travelers watched the explorers land, march across the sand, and disappear in the distance. All day they waited eagerly for the men to return with their report of the new land.

Late in the afternoon the exploring party came back. They brought fresh water and also some sweet smelling cedar to burn. They had a good report to make of the new country. "There is

rich black earth," said Master Brewster, "and there are forests of oak, sassafras, cedar and walnut."

When they heard this, the children were delighted. They remembered how Priscilla had said that the sassafras could be sold in England. "And when we go ashore," whispered Love to Bart, "we can hunt for walnuts."

"Yes," Bart replied, "if the squirrels haven't found them first."

"We tramped for many miles," continued Master Brewster, "without seeing an Indian or any Indian wigwams. We saw tracks of deer and fowl, and at one spring we saw a deer drinking; and, best of all, we found a great clear place where we can easily raise grain."

Again everyone looked delighted, for even little Damaris Hopkins knew that if they were to remain in America, they must have fields fit for growing grain.

"It would take too long to build a separate house for each family," Master Brewster said, "so tomorrow we plan to begin putting up one big cabin in which we can all live together until more houses are built. We can always use this

big cabin or common-house, for a fort and meeting-house; and later we shall build our own new homes near it."

Love and Wrestling were very happy to hear their father's good report. Fortunately they did not know then that they must spend two more long months on the *Mayflower*. They did not know that the Indians were not so far away as the Pilgrims thought. They did not know the hardships of living in a new country; so they slept happily that night, dreaming of gathering walnuts and sassafras in the *New England* to which they had come.

PART II

It was a cold day in February when the Brewsters finally left the *Mayflower* to go to their new home, which Master Brewster had just finished. For some time most of the men had been living in the common-house while the women and children stayed on the *Mayflower*. At last five of the houses were finished; and one of these houses was the Brewster's new home.

All the five houses looked just alike; they were rough log cabins. The spaces between the logs



were plastered with clay to keep out the cold. The windows had oiled paper stretched tightly across them instead of being filled with clear panes of glass as our windows are now. Each house had two rooms; one was for a kitchen and livingroom, the other for a bedroom. Most of the houses had only bare earth for a floor, but the Brewsters' house had a floor made of logs that had been split in two and their faces had been made smooth by using a broadaxe. Such a floor is sometimes called a puncheon floor.

Love had often gone with Master Brewster to help him work on their house; so now Love pointed it out to Wrestling as they followed their parents up the hill to the new home. "Father let me build the fire in our new fireplace," he proudly told Wrestling.

"Where did you get the fire?" asked Wrestling.

"I brought a pan of red coals from the common-house," Love answered. "Of course, I might have made fire by striking steel and flint together; but that would have taken longer."

There was a cheerful fire blazing in the huge fireplace when the Brewsters entered their new home. Mistress Brewster smiled when she saw the blazing fire and the new table and chairs that Master Brewster had made. "We shall soon be settled," she said, "after the men bring our chests from the ship."

The table was made of two long boards fastened together and set on a pair of trestles. The chairs were three-legged stools made of blocks of wood. In one corner of the room there was a cupboard with three rough shelves where Mistress Brewster could keep the few dishes that she had brought from England.

In the other room, Love pointed out the two strange-looking beds in which they were to sleep. Two sides of each bed were formed by the logs in the two walls in the corner of the room; and the other two sides of the beds were formed by two boards held in place by tree stumps. Across



the top of this frame lay boards that looked like bed slats. "We shall lay our big feather beds on these boards and be quite comfortable," said Mistress Brewster, "and we shall hang heavy curtains on two sides of your bed, lads, to make a separate room for you. But go, Wrestling, and open the door. I hear the men coming with our chests."

Soon the Brewsters were at work unpacking the heavy chests and dragging in the spinning wheel and the armchair which the men had brought up from the ship. They carried the big feather bed and a smaller one and laid them on the slats. They put the blankets and the bed-clothes on boards outside the house where they would be in the sunshine and the fresh air. They then unpacked the pewter plates and spoons and mugs and placed them in the cupboard.

On the top shelf, where everyone could see it, Mistress Brewster put her fine silver teapot to remind them of their old home in England. But the precious candles they had brought with them, Mistress Brewster did not unpack. Candles were too scarce to be burned every day; so the Brewsters, and the other Pilgrims, would light their

house by burning pine knots on a flat stone in a corner of the fireplace.

PART III

It was time for dinner before the Brewster family realized it. Mistress Brewster cut some deer meat or venison into pieces and dropped them into an iron pot that was swinging over the fire in the fireplace. All their cooking must be done in the fireplace, for neither they nor their friends had stoves. When she wanted to bake bread, Mistress Brewster would put the dough into a big iron kettle that had a heavy lid. Then she would push the kettle close to the fireplace, heaping hot coals on the lid and turning the kettle often so that the bread would bake on all sides. But she did not have to bake bread the first day, for she had brought some from the *Mayflower*.

After the venison stew had been cooking for some time, Mistress Brewster dropped some parsnips into the broth with the meat. By the time they were cooked tender, the dinner would be ready. Love and Wrestling were both sniffing the delicious odors from the stew and were wishing that it were done.

But they continued with their work even though they were hungry. Love had spread a white linen cloth on the table; then he had cut the bread and put it on a pewter plate on the table. Wrestling had filled a round dish with salt for the table and had put at each place a pewter mug filled with water. He wished that they could have milk to drink and butter to eat on their bread but no cows had yet been brought from England.

At each place, Wrestling laid the knives and the spoons. They had no forks, for forks were not known at that time; they had to eat with their knives and often with their fingers. Love, therefore, put big napkins at each place on which they could wipe their greasy fingers.

Love was now getting the two wooden trenchers ready for the stew. The Pilgrims used these trenchers instead of plates. They were blocks of wood, about ten inches square, scooped out in the center like shallow bowls. Into each of these wooden bowls Mistress Brewster placed part of the venison and parsnips. Then she and her husband ate from one trencher while the boys ate from the other.



At last the dinner was ready, and the Brewster family sat down to their first meal in their new home. How good everything tasted! "It's the best dinner I have ever eaten!" Wrestling declared as he finished his last bite of venison.

"Aren't we a happy family, Father, in our new home?" Love asked, starting to clear the table.

"Yes," Master Brewster agreed, looking proudly at his two sons, "I think we are truly a happy family."

THE COMING OF THE WHITE MAN

How do you suppose the Indians felt when they first saw white men?

Many years before the Pilgrims came to America, an English captain sailed along the eastern coast of America. He had come to trade with the Indians. Here is a story that tells about his meeting with a band of Indians who had never before seen white men.

These Indians were one day spearing fish in a quiet bay along the sea. The Indian women, or squaws, and the children were in the wigwam village on the shore.

"We must work faster," the Indian leader was saying. "It is getting late, and our squaws are waiting to cook the fish." So they worked hard, thinking only of filling their baskets with enough fish for the whole village.

Suddenly there was a cry from one of the squaws. The Indians looked up from their work. At first they thought the squaws must have spied some unfriendly Indians hiding in the forest. But all the squaws came running down to the shore, pointing out toward the sea.

A big boat with white sails was approaching. The Indians used small birch canoes or light rafts when they traveled on the water; as they had never seen a large boat, they did not know that this big white-winged thing was a boat.

"Who can it be?" they asked one another.

"It is a spirit from the great waters," said one.

"Can't you see that it is a huge bird?" asked another. "Look at its great wings!"

At last the Indians agreed that it was a huge bird.

As the boat came nearer, the Indians could see that the big bird was carrying about two dozen men. And yet they did not look like Indian men. Their faces were not reddish brown like the Indians' faces; their faces were white and had a great deal of long hair hanging down from the chin.

The boat came nearer and nearer. At last it reached the shallow water near the shore. It could come no closer. Soon the Indians saw the strange creatures on board lower a small boat. It looked something like an Indian canoe except that it was larger and clumsier. The men descended

into this boat. They all wore armor to protect them in case the Indians should attack them. The Indians thought that this glittering armor was the skin of the men's bodies.

These strange white-faced men rowed over to the shore where the Indians had been spearing fish. Most of the Indians had their bows and arrows ready, for they were not sure whether these strange men would prove to be friends or enemies.

But the white men smiled at them in a friendly



way and held out bright trinkets to them. At first the Indians were afraid. They could not understand the queer language of the white men. But by signs the white men made them understand that if the Indians would bring their beaver and otter and bear skins, they would give in exchange for them, blue and red glass beads, knives, bracelets, and little bells.

So the Indians gathered together all their furs and brought them to the white men. How happy the Indians were to get the shining bracelets and the bright beads! The Indian who had no skins to trade thought himself an unlucky man.

At last the white men rowed back to the big sailboat with the valuable furs they had received in exchange from the Indians. When they were all safe on the boat, the captain leaned over the rail of the deck. He waved some long pieces of bright red cloth at the Indians. "Come," he motioned to them. "Here are gifts for the best swimmers."

Every Indian loves bright colors. Every one of those Indians wanted the prize—the bright red cloth. So into the water the young Indians ran, and when they came to the deeper water they

swam with clean, strong strokes. The other Indians cheered them from the shore.

Several Indian lads reached the boat at about the same time. They climbed up the side of the boat. The white men on the boat reached down and helped them up. At least a dozen Indians would receive the bright colored prizes.

Then the Indians on the shore saw something that they could not believe. The traders who had been so kindly were now seizing the Indian lads and binding them with ropes. The poor lads had been taken prisoners. The dishonest captain was carrying them away to sell them as slaves in Spain and England. Perhaps they would never see their parents again.

Already the vessel was starting on her trip back across the ocean. It was of no use for the Indians on shore to try to follow in their frail canoes or to try to shoot arrows such a long distance; so the big boat sailed away across the ocean.

How do you think the Indian fathers and mothers felt? Do you understand now why they were sometimes cruel to the settlers who later came to America to live?



THE PILGRIMS' FIRST INDIAN VISITOR

It was early springtime before the Pilgrim settlers had their first Indian visitor. At times they had seen Indians in the distance or had heard their yells in the forests. And once a band of Indians had shot arrows with heads of brass and eagles' claws at some of the Pilgrims. But the Indians had always stayed at a distance. How surprised the Pilgrims must have been when one day an Indian walked into their village of Plymouth.

He was tall and as straight as an arrow. He wore no clothing except a wide girdle of fringed buckskin about his waist. Several eagle feathers were twisted into his long black hair. As he tramped along the street he cried, "Welcome, Englishmen, welcome!" quite as if he were an old friend.

The Pilgrims were glad to hear these friendly



words from the Indian. But they were surprised to hear him speak to them in English. They invited him to enter one of the new log houses.

“What is your name?” the Pilgrims asked him.

“Samoset,” the red man answered.

Then Samoset told the Pilgrims how he had learned to speak a few words of English from fishermen and traders who had visited America before the Pilgrims came.

“You are the first Indian who has come to visit us in our new town,” one of the Pilgrims said. “Why do the other Indians stay away? Are they afraid?”

“No, we are not afraid,” Samoset answered, “but a terrible sickness attacked the Indians who used to live here. Nearly all of them died. The rest were afraid that another great sickness might come here; so they left these rich lands and moved far away.”

Samoset’s news meant a great deal to the Pilgrims. They knew now that no one would claim the land they had taken for their village. They knew that they could raise their crops in peace.

“When we first came,” a Pilgrim said, “some

Indians shot arrows at us. Here is an arrow that struck a log near me. Why did these Indians try to kill us?"

Samoset looked at the arrow carefully before he answered. "Those were not the Indians of my tribe," he said. "They were the Nawset Indians. They are angry with all white men. Many years ago a white man sailed along this coast trading the Indians bright trinkets for furs. He was cruel and dishonest with the Nawsets; he carried off many of the Nawset lads as slaves. That is the reason they do not trust white men. That is why they shot at you."

"But we want to be friends with the Indians," the Pilgrims said. "We want the white men and the red men to live side by side like brothers."

"That is the way the Indians of my tribe feel, too," said Samoset. "My great chief told me to say to you, 'Let us always be friends.'"

Samoset stayed all night with the Pilgrims. Before he started home, the Pilgrims gave him a knife, a bracelet, and a ring. He promised to return in a few days with some other Indians. Then Samoset set out to tell his great chief about their new friends, the white men of Plymouth.

WHAT SQUANTO TAUGHT THE PILGRIMS

The next time that Samoset visited the Pilgrims, he brought other Indians with him. Among these Indians was Squanto, who was one of the lads that had been stolen and carried away by the dishonest sea captain. Squanto had spent three years as a slave in England. At last he had run away from his master and had managed to return to America to live with his people again.

He could speak English very well. So he was able to tell the Pilgrims many things about life in the New World. The other Indians could not understand the English language; but Squanto could tell the Indians just what the white men wished to say to them. Therefore, he was a great help to the Pilgrims.

When Squanto came, the Pilgrims were wondering how to plant their corn. "You are lucky," Squanto said to them, "to have this great clear space to plant corn in. This is where the Indians used to raise grain before the great sickness took them away. But you must catch fish before you plant your corn if you want to get a good crop."

The Pilgrims smiled at one another. "Why



should we catch fish in order to raise corn?" they were thinking. "It is a foolish Indian idea."

"The soil here is not so rich as it used to be,"

Squanto continued. "So you must put a small fish into each hill of corn to feed or fertilize the crop. I will show you how to catch the little fish to plant with each kernel of corn."

Squanto also showed the Pilgrims how to catch eels. He waded into the water and began to tread up and down in the mud. Suddenly he stooped and with a quick jerk pulled a long fat eel from the water with his hands. He threw the eel out on the bank and continued treading in the mud. Soon he had all the eels the Pilgrims could eat.

When the Pilgrims came from England, they brought a supply of sugar with them. But they had used up most of this sugar although they had been very careful with it, and so they were glad when Squanto showed them how to get a new sugar supply from the maple trees in the forest.

He led the Pilgrims to a fine grove of maple trees. With one of the white men's axes he cut a gash in the trunk of a maple tree. Then he drove a big hardwood chip deep into the cut which the axe had made. From the corners of this chip the maple sap trickled into the pail he had placed below. At first the sap came only drop by drop; but it soon came more freely.

“From each tree,” Squanto explained, “we shall get several gallons of maple sap. We shall boil this sap until it is thick; it will then be maple syrup. Or we can boil the syrup a little longer and then have maple sugar.”

While the sap was flowing, the Pilgrims built a roaring fire. They hung a row of iron and brass kettles above the fire on a heavy green stick about four inches thick. This stick was held in place at each end by the forked trunk of a small tree driven firmly into the ground.

Then the Pilgrims collected the sap that had run into the pails and poured it into the kettles that were hanging over the fire. How pleased the Pilgrim children were to hear the hissing sound of the boiling sap! Squanto let some of the larger boys watch the kettles to see that the sap should not boil over, and the other children gathered dead branches from the ground to keep the fire burning.

At last the sap became syrup. Some of this syrup was made into maple sugar. How the Pilgrim children smacked their lips over this delicious treat! How thankful all the Pilgrims were for the help Squanto had given them!

JOHN BILLINGTON'S ADVENTURE

PART I

There were many ways in which the Pilgrim children helped their parents every day. They kept the woodbox filled with driftwood. They carried buckets of drinking water from the spring. They helped to mould candles and to make soap. Sometimes the boys as well as the girls learned to cook, to sew, and to knit stockings, mittens, and suspenders. But their life was not all work. When they had finished their morning tasks, the Pilgrim children often met to play games.

One day late in July, five of the Pilgrim boys were playing hide-and-seek among the trees and brush near the clearing. The two Brewster boys and Love's best friend, Bart Allerton, were there, and the two Billington boys, John and his brother, Frank. John Billington, who was older than the other boys, liked to be a leader. He was always teasing the younger boys or trying to show them how clever he was. Now he was boasting loudly, "This time I'll hide where you'll never find me." Then he ran away as fast as he could into the forest. He hid himself in the branches of an old

tree that had broken in two and had fallen over. In the distance he dimly heard Bart calling, "Here I come!"

While he lay there waiting for Bart to find him, John heard a buzzing sound in the trunk of the old tree. Then he saw many honeybees flying out of the hollow trunk. "There must be wild honey in the trunk," John said to himself. "I must find out. Perhaps I can take it back to Plymouth. How they praised Squanto when he brought in the first honey! How the boys will envy me when I return with my load of honey!"



John did not stop to think how he could carry the honey nor how he could protect himself from the bees. He climbed up to the hole in the tree. He peered in. Yes, there was a great store of honey. Just then an angry bee stung John on the neck and another stung him on his thumb. Soon the whole swarm of bees was after him.

John dropped from the tree and started back to the clearing where the other boys were playing. He could hear the angry bees following him; so he ran on blindly.

He ran and ran, but he did not reach the clearing. At last he decided that he had gone in the wrong direction. At any rate the bees were not following him any longer. He turned and went in the opposite direction to find the boys. He would show them the stings and ask them to help him get the honey. Perhaps with their help he could smoke the bees out of the trunk of the tree as Squanto had done.

But John could not find the clearing. He was in a patch of dark woods and knew that he had never been there before. He began to shout for help for he now realized that he was lost. Then, remembering that there might be unfriendly

Indians in the woods, he stopped shouting. He ran back the way he thought he had come but he could not find one familiar spot. At last he sat down, worn out. He thought that as soon as the Pilgrims missed him they would come hunting for him. He wondered whether some bears or wolves would find him first. But finally he fell asleep in the forest just as the owls were beginning to hoot and the first stars were beginning to twinkle in the sky.

PART II

John Billington had spent four long days alone in the forest. The berries were ripe and they were his food. He drank when he came to a spring or a stream. He slept on the ground whenever he got so tired that he could go no farther, and sometimes he cried himself to sleep. How he wished he could see his mother! He was sorry that he had often disobeyed her. And he decided that if he ever got back to Plymouth, he would never tease his playmates again. But although he walked miles and miles, as it seemed to him, he could not find the way out of the woods.

At last in the afternoon of the fourth day, he

heard a welcome sound. He heard the barking of a dog. Thinking it was the brown spaniel that Bart Allerton's father had brought from England, he gave a shout and began running in the direction of the sounds.

Soon he came to some underbrush that was so thick he had to stop running and choose his way carefully. By this time he was close enough to hear the sound of men's voices. Thinking he must let them know that he was no longer lost, he called out loudly, "Here I am! Here I am!"

Just then he came in sight of the men. They were Indians. John was too surprised and too scared to run, and so he just stared at them.



He wondered what they would do to him. Would they hurt him? Would they carry him far away as a slave? Would they take him back to Plymouth?

Then John remembered what the Pilgrims had said to Samoset, "We want the white man and the red man to be brothers." So he went bravely up to the Indian who looked like the leader. He shook hands with him as the Pilgrims had done with Samoset. Remembering that the Pilgrims had given gifts to Samoset, he took his treasured jackknife out of his pocket and gave it to the leader.

The leader seemed pleased with John's actions. The Indians talked together for a long time. John could not understand anything they said, but he could tell by their faces that they felt friendly toward him.

Finally the leader made a sign for him to come with them and they set out for their camp. They walked in single file through the forest for two or three hours. John was worn out but he did not complain. He tramped along bravely just behind the leader.

It was almost dark when the Indians reached their camp. John could see the group of dark

wigwams and the light of a large camp fire. The squaws were cooking a huge kettle of venison over the fire. John was hungry; he wished that the Indians would begin eating and give him some food, too. But they were too busy to eat. The squaws were asking questions about John. They were feeling his shoes, his clothing, and his white skin. Finally one old Indian squaw gave him a piece of venison to eat. Then she took him to a wigwam where he lay down on a deerskin and fell fast asleep.

PART III

When John awoke the next morning, he lay for a few minutes looking at the inside of the wigwam where he had spent the night. He thought that it was a queer house. In building it, the Indians had first set several long poles in the ground in a circle. They then had bent these poles over and tied them at the top. Over the poles they had stretched deerskins. They left a small hole at the top of the wigwam. The fireplace, which was just a bare spot in the floor of the wigwam, was directly under this hole in the top so that the smoke could escape. On the

walls of the wigwam were Indian baskets, bows and arrows, and ears of yellow corn.

John could hear the Indians shouting and laughing outside of the wigwam. But he did not go out to see what they were doing, until two little Indian boys lifted up the deerskin flap of the wigwam and said something to him. Although he could not understand what they were saying, he got up and went outside.

In front of the wigwam an Indian squaw was preparing the breakfast. She had a pot hanging over a pile of burning twigs. In the pot she was cooking some fish which would soon be done.

The two little Indian boys had done their share towards getting breakfast by gathering the twigs for the fire. But there was one more thing which they must do before they could have their breakfast. Every Indian, you know, must learn to be skillful with the bow and arrow. The squaw set up a mark for the smaller boy to shoot at. He could not have any breakfast until he had hit the mark. The other boy had a harder task. The squaw threw a piece of moss into the air. The older boy must shoot and hit the moss as it fell. Then *he* could have *his* breakfast.

John looked around the Indian camp. He saw many squaws and many children, but no Indian men. They had gone to the forest very early to get food for their families. Perhaps they would come home bringing a big red deer or a bear that they had chased many miles. Or they might catch some raccoons for a delicious stew. It was the men's work to hunt and fish. They also went to war and held councils with the men of their tribe. The rest of the work was left to the women.

As soon as breakfast was over, the squaw got ready to work in the cornfields. She took down her baby, or papoose, which had been hanging in its cradle in a tree. This cradle was just a straight board about two feet long with a handle, which curved over the baby's head. Straps of deerskin held the papoose in the cradle. When the mother reached the cornfield, she hung the board to the limb of a tree and let the baby hang there while she weeded the corn. The baby must swing there until the work was done. John watched the funny little papoose for a while, but at last he, too, began pulling weeds. As he worked, he felt more homesick than ever.

He would have been a happy lad, however, if he had known these two things. The Indians had decided in their council to take the palefaced boy to his home. But first they must secure enough food to last for a few days. And the Pilgrims, too, were trying to find John and take him back home again. Squanto was helping them trace John's footsteps through the forest.

But John did not know anything about this good news until the next day. When the Indians were ready to start, they first gave him many bracelets and necklaces of beads. Then they started out for Plymouth with him. When they had gone several miles, they met the Pilgrim searching party. Can you imagine how glad John was to see the Pilgrims?

The white men rewarded the Indians with gifts of knives and trinkets. Then they started back to Plymouth. On the way back, John heard the leader of the Pilgrims say, "Master Billington, you must whip your son soundly when you get him home. He has caused us much worry and trouble."

"I agree with you," his father replied. "He shall feel a stout birch rod on his back."

But John was so glad to be going home that he felt sure he would not complain of any punishment that might be given him.

HIAWATHA'S CHICKENS

Then the little Hiawatha
Learned of every bird its language,
Learned their names and all their secrets,
How they built their nests in Summer,
Where they hid themselves in Winter,
Talked with them whene'er he met them,
Called them "Hiawatha's Chickens."

Of all the beasts he learned the language,
Learned their names and all their secrets,
How the beavers built their lodges,
Where the squirrels hid their acorns,
How the reindeer ran so swiftly,
Why the rabbit was so timid,
Talked with them whene'er he met them,
Called them "Hiawatha's brothers."

—*Henry Wadsworth Longfellow*

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WAUKEWA'S EAGLE

PART I

One day, when the Indian boy, Waukewa, was hunting along the mountain-side, he found a young eagle with a broken wing, lying at the base of a cliff. The bird had fallen from an aery on a ledge high above, and being too young to fly, had fluttered down the cliff and had injured itself so severely that it was likely to die. When Waukewa saw it, he was about to drive one of his sharp arrows through its body, for the passion of the hunter was strong in him, and besides, the eagle was his enemy, often plundering many a fine fish from the Indians' drying-frame.

But a gentler impulse came to him as he saw the young bird at his feet quivering with pain and fright; so he slowly unbent his bow, put the arrow into his quiver, and stooped over the panting eaglet. For fully a minute the wounded bird and the Indian boy looked into each other's eyes—their eyes growing gentler and softer as they gazed. Then the struggling

By permission, from *Waukewa's Eagle*, by James Buckham, in *St. Nicholas*
The Century Company.

and panting of the young eagle ceased; the wild, frightened look passed out of its eyes, and it suffered Waukewa to pass his hand gently over its ruffled and draggled feathers. The fierce instinct to fight, to defend its threatened life, yielded to the charm of the tenderness and pity expressed in the boy's eyes; and from that moment Waukewa and the eagle were friends.

Waukewa went slowly home to his father's lodge, bearing the wounded eaglet in his arms. He carried it so gently that the broken wing gave no twinge of pain; and the bird lay perfectly still, never offering to strike with its sharp beak the hands that clasped it.

Waukewa bathed the broken wing of the eagle, and bound it up with soft strips of skin; then he made a nest of ferns and grass inside the lodge, and laid the bird in it. The boy's mother looked on with shining eyes. Her heart was very tender. From girlhood she had loved all the creatures of the woods, and it pleased her to see some of her own gentle spirit awaking in the boy.

When Waukewa's father returned from hunting, he would have caught up the young eagle and wrung its neck. But the boy pleaded with



him so eagerly, stooping over the captive and defending it with his small hands, that the stern warrior laughed and called him his "little squaw-heart." "Keep it, then," he said, "and nurse it until it is well; but then you must let it go, for we will not raise up a thief in the lodges." So Waukewa promised that when the wing was healed and the eagle had grown so that it could fly, he would carry it forth and give it its freedom.

It was a month—or, as the Indians say, a moon—before the young eagle's wing had fully healed and the bird was old enough and strong enough to fly. And in the meantime, Waukewa cared for it and fed it daily, and the friendship between the boy and the bird grew very strong.

But at last the time came when the willing captive must be freed. So Waukewa carried it far away from the Indian lodges, where none of the young braves might see it hovering over and be tempted to shoot their arrows at it, and there he let it go. The young eagle rose toward the sky in great circles, rejoicing in its freedom and its strange, new power of flight. But when Waukewa began to move away from the spot, it came swooping down again; and all day long it followed him through the woods as he hunted. At dusk, when Waukewa shaped his course towards the Indian lodges, the eagle would have accompanied him. But the boy suddenly slipped into a hollow tree and hid, and after a long time the eagle stopped sweeping about in search of him and flew slowly and sadly away.

PART II

Summer passed, and then winter; and spring came again, with its flowers and birds and swarming fish in the lakes and streams. Then it was that all the Indians, old and young, braves and squaws, pushed their light canoes out from the shore, and with spear and hook, waged pleasant

war against the red-spotted trout and other fish. After winter's long imprisonment, it was great joy to toss in the sunshine and warm wind and catch savory fish to take the place of dried meats and corn.

Above the great falls of the Apahoqui the trout sported in the cool, swinging current, darting under the lee of the rocks and leaping full length in the clear spring air. Nowhere else were such trout to be speared as those which lay at the head of the Apahoqui rapids. But only the most daring braves ventured to seek them there, for the current was strong; and should a light canoe once pass the danger-point and get caught in the rush of the rapids, nothing could save it from going over the roaring falls.

Very early in the morning of a clear April day, Waukewa launched his canoe a half mile above the rapids of the Apahoqui, and floated downward, spear in hand, among the riffles. He was the only one of the Indian lads who dared fish above the falls. But he had been there often, and never yet had his watchful eye and his strong paddle suffered the current to carry his canoe beyond the danger-point. This morning he was

alone on the river, having risen long before daylight to be first at the sport.

The riffles were full of fish—big, lusty fellows, which glided about the canoe on every side in an endless silver stream. Waukewa plunged his spear right and left, and tossed one glittering victim after another into the bark canoe. So absorbed in the sport was he that for once he did not notice that the canoe had begun to glide more swiftly among the rocks. But suddenly he looked up, caught his paddle, and dipped it wildly in the swirling water. The canoe swung sidewise, shivered, held its own against the torrent, and then slowly, inch by inch, began to creep upstream toward the shore. Suddenly there was a loud, cruel snap, and the paddle parted in the boy's hands, broken just above the blade! Waukewa gave a cry of despairing agony. Then he bent to the gunwale of his canoe and with the shattered blade fought desperately against the current; but it was useless. The racing torrent swept him downward; the hungry falls roared tauntingly in his ears.

Then the Indian boy knelt calmly upright in the canoe, facing the mist of the falls, and folded



his arms. His young face was stern and lofty. He had lived like a brave hitherto—now he would die like one.

Faster and faster sped the doomed canoe toward the great cataract. The black rocks glided away on each side like phantoms. The roar of the terrible waters became like thunder in the boy's ears; but still he gazed calmly and sternly ahead, facing his fate as a brave Indian should. At last he began to chant the death-song, which he had learned from the older braves. In a few moments all would be over; but he would come before the Great Spirit with a fearless hymn upon his lips.

Suddenly a shadow fell across the canoe. Waukewa lifted his eyes and saw a great eagle hovering over, with dangling legs, and a spread of wings that blotted out the sun. Once more the eyes of the Indian boy and the eyes of the eagle met; and now it was the eagle who was master!

With a glad cry the Indian boy stood up in his canoe, and the eagle hovered lower. Now the canoe was tossed up on that great swelling wave that climbs to the cataract's edge, and the boy

lifted his hands and caught the legs of the eagle. The next moment he looked down into the awful gulf of waters from its very verge. The canoe was snatched from beneath him and plunged down the black wall of the cataract; but he and the struggling eagle were floating outward and downwards through the cloud of mist. The cataract roared terribly, like a wild beast robbed of its prey. The spray beat and blinded them, and the air rushed upward as they fell. But the eagle struggled on with his burden. He fought his way out of the mist and the flying spray. His great wings threshed the air with a whistling sound. Down, down they sank, the boy and the eagle, but ever farther from the precipice of water and the boiling whirlpool below. At length, with a fluttering plunge, the eagle dropped on a sand bar below the whirlpool, and he and the Indian boy lay there a minute, breathless and exhausted. Then the eagle slowly lifted himself, took the air under his free wings, and soared away, while the Indian boy knelt on the sand, following with shining eyes the great bird till he faded into the gray of the cliffs.

—*James Buckham*

INDIAN TRAVEL

The Indians had very simple ways of traveling from place to place. They had to go either by boat or on foot for there were no railroads or automobiles or even stagecoaches.

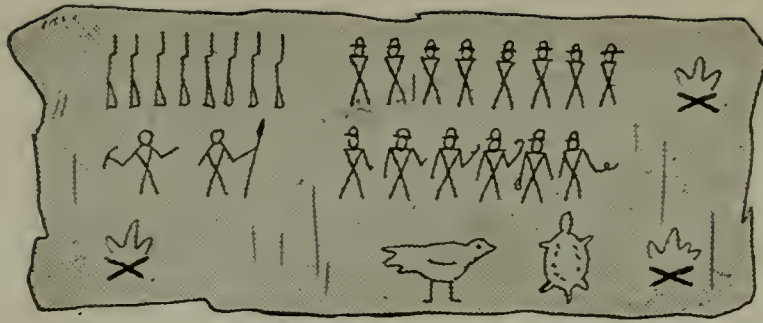
The Indians found that it was much easier to travel by water. They used light bark canoes. The framework of these canoes was made of strips of wood fastened together by tough roots or sinews. This framework was covered by pieces of birch bark which had been sewed together. All the seams were covered with pitch and grease so that the canoe would be watertight. Some of these canoes were large enough to hold fifty persons, but they were so light that one man could carry a small canoe on his shoulder. Every little Indian boy and girl learned to manage a canoe skilfully.

Sometimes the Indians used a heavier wooden canoe called a dugout. This was made from the trunk of a tree. The first thing an Indian did in making a dugout was to put burning coals on top of a large log. After a little while he scraped away the burnt part of the log with bones and shells. He repeated this process many times

until the log was hollowed out in the form of a trough. He then sat in his hollow log and used paddles or sticks to propel it through the water.

In winter, when the lakes and rivers were frozen, the canoes and dugouts were no longer useful. Then, if an Indian wished to go far, he used snowshoes. These were made with a frame of maple wood and with strips of deerskin strung across the frame. They looked much like big tennis rackets. These snowshoes kept the Indian's feet from sinking into the snow. On them he could travel thirty-five or forty miles in a day. Each tribe had its own kind of snowshoes. When one Indian met another he could tell whether the Indian was a friend or an enemy by looking at his snowshoes.

Most of the Indian paths through the forest were merely trails that animals had made while on their way to springs or to new feeding grounds. The Indians traveled in single file along these narrow winding trails. They learned to make the calls of the wild birds and the beasts. If they could gobble like a turkey or howl like a wolf, it helped them to get nearer their game when they were on the hunt.



Sometimes when the Indians were traveling, they wished to leave a message for other Indians who might come that way. Here is a letter that some Indians wrote on a piece of birch bark. They stuck the letter into a pole, which was set slanting in the ground. The pole pointed in the direction in which the party had gone. Three notches cut on the pole showed that the party would travel for three days.

The letter told that eight white soldiers and six white officers were traveling with two Indian guides. It also told that during the day they had secured a prairie hen and a turtle for their supper, and that at night they had burned three camp fires.

Before the coming of the first explorers, the Indians did not have horses or ponies or cattle or any beast of burden. Without these animals, they could not raise much grain, and so they

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had to hunt game for food. People who live by hunting have to move about, and therefore they do not have a chance to build comfortable homes, or fine buildings, nor do they have time to find out better and easier ways of doing things.

We all know that the white men who came over to this country from Europe were what we call civilized and that the Indians they found here were what we call savage or uncivilized; but not many people even today realize that the difference was due largely to the fact that the Indians did not have any animals to work for them.

Some tribes of Indians had learned to use dogs to help carry their goods from place to place. They fastened one end of a long pole to each side of the dog, and let the other end drag on the ground. Between the two poles, a large basket was suspended, just high enough to clear the ground. In these baskets were carried their belongings, or sometimes a baby or a helpless old woman, while they were traveling from one camp to another.

Sometimes the dogs became thirsty and ran into the water with their loads; then the babies would cry and the old women would scold.

WA-SA-WA'S SNOWSHOES

PART I

This story has an old, old beginning. Two braves loved the same maid. She was beautiful. Both of them were bold and courageous. One was named Wa-sa-wa, and the other O-a-ka-na. Wa-sa-wa was like the Elm, tall, slender, graceful. O-a-ka-na was like the Oak, short, sturdy, defiant; so you see they were a stalwart pair.

The maid was known as Laughing Eyes. She was the light of her father's lodge. Her father was a great chief. For some reason, he preferred O-a-ka-na for a son-in-law. The Maid with the Laughing Eyes preferred Wa-sa-wa; the situation was puzzling for the maid. If she were to wed Wa-sa-wa, it would displease her stern father. If she were to wed O-a-ka-na, whom she did not love, she was certain she would never be happy.

To settle the question, the old chief proposed that the lovers should take a long journey. He had a message to send to a chief in the far North, and he would send it by them.

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Standard Book Company, Publishers.

Each of these lovers was to take a copy of this message to the chief of the North country. The one who came back first with an answer should have the consent of the old chief to marry his daughter.

Mind you, this was in the middle of winter. The snow lay deep in the woods and upon the plains. The weather was biting cold. The distance to be covered was so great that, without accident, it would take a full round moon (a month) to go and return. Should the weather be stormy, it might take much longer.

There was not even a marked tree to guide the travelers on their way. They had to journey through a pathless wilderness; it was a long, hard trip to make.

The lovers were willing to make the trial, but the Maid was worried; for while Wa-sa-wa was fleet of foot, she feared O-a-ka-na might prove more than a match for Wa-sa-wa on so hard a journey.

What if O-a-ka-na should win? She cried that night when Wa-sa-wa talked to her. When an Indian maid cries, you may know her heart is breaking.

Wa-sa-wa did his best to console her. He told her of his fleetness. He told her of his strength; and he told her he knew his love would make him stronger than his rival.

O-a-ka-na came merely to tell her to be in readiness for the wedding when he got back. He was certain he should win; so was the old chief, and so were many of the warriors of the tribe, though not one failed to wish Wa-sa-wa success.

Three days were given the rivals in which to get ready. At sunrise, on the morning of the fourth day, they were expected to start.

The Maid with the Laughing Eyes slept but little that first night. When she did sleep, she had a strange dream. This dream came to her three times. The last time she awoke unable to sleep any more.

In her dreams she saw some ducks walking on the snow! Nothing more; but the third time, she saw that they were, in some strange way, held up on the top of the snow, and that they walked about easily. Other creatures sank into the fluffy mass, and floundered about in great distress.

The next morning, as soon as she was dressed, she scattered some bits of meat and seeds for the

wild birds to feed upon. She had done this many times, and on several occasions, a pair of wild ducks had come with the birds. They came this morning. She had fed the ducks so many times that they had become very tame; so she had no trouble in catching one now. After patting him on the neck, she threw him far out over the snow. To her joy he rose on the snow and walked back to her, as if he had enjoyed the sport. She then saw that it was his webbed feet that held him up, while the birds that did not have such feet, sank into the snow.

Her dream had come true! Being wise beyond her years, she reasoned, "Why couldn't Wa-sa-wa have something to put on his feet to hold him up? If he could walk upon the snow like the duck, surely he could get back before O-a-ka-na!" The thought filled her with joy. She would make something to help Wa-sa-wa win that long bitter race.

How to do this taxed her woman's wit; but where there is a desire to win, there is a way to win. She knew that whatever she made must be light as well as strong; and she looked about to find something that would answer her purpose.



She found some strips of dry ash, the lightest wood she could find. She knew they were strong, for she had made bows for her father out of such strips; then she found some deer thongs. These she wove across the space between the frames, until she had a good, firm web. She next fixed some thongs so that they would hold the strange covering upon Wa-sa-wa's foot.

The maid did not show the result of her handiwork to Wa-sa-wa that night. She wanted to make the other shoe before saying anything about her plan. It was easier to make the second than it had been to make the first. She improved in her work, too. She also made some improvements in the one she had made first. Before nightfall, she had completed the task. In this way a woman made the first pair of snowshoes ever known.

When Wa-sa-wa saw the shoes, he shook his head. He could not realize the benefit they would be to him. Nevertheless, he promised to give them a fair trial.

"Do this and I am certain you will win," she said.

Then she wrapped the shoes in a piece of

deerskin, and made him promise not to let O-a-ka-na see them. She told him he was not to put them on until O-a-ka-na was out of his sight.

Wa-sa-wa promised all this, and so they parted, each hopeful.

PART II

The morning when the rivals were to start on their journey, the weather bore signs of a coming storm; but that did not stop them. Both were ready to go and determined to win.

It was past mid-day before Wa-sa-wa stopped to put on his strange webbed moccasins. He had allowed O-a-ka-na to get out of sight first, and then with fear and wonder, he fastened the strange things on his feet.

The first step he took, he plunged headlong into the snow! He was angry when he stumbled to his feet. He could never walk on such things, he protested. He tried again. This time with a little better success. He actually walked three or four steps before falling. Then he tried again, more carefully this time. He walked easier. He walked farther. This time, when he stopped, he saved himself from falling.

He now found that the snowshoes did keep him up, and that he was beginning to walk easily with them.

He had now begun to think that a woman's wit and love would help him win the race.

That night a fearful storm arose. The storm raged for three days; but the snowshoes enabled Wa-sa-wa to keep on. To his delight, he could walk on the snow and never tire.

Wa-sa-wa now knew he was going farther each day than he could have gone without the snowshoes. As yet he had seen nothing of O-a-ka-na.

It was very cold after the storm had cleared away; but Wa-sa-wa kept moving. In this way he did not suffer from the cold. At times, where it was clear, he fairly flew over the light snow! What sport it was! It was the most delightful experience he had ever known.

The few animals he saw scurried away, as if frightened at the sight of him.

"I can outrun you all!" he shouted in high glee.

A lone crow flew over his head. The crow gave a loud "caw," and then flew in another direction.



“I can outfly you!” shouted Wa-sa-wa. “I have wings on my feet!”

It was a merry race Wa-sa-wa was running.

Near the close of a beautiful winter day, Wa-sa-wa reached the end of his long journey. He found the chief of the North country sitting in his lodge door. He was smoking. He did not show any surprise at sight of Wa-sa-wa. That is an Indian's way.

He was surprised at something else. He was surprised when he saw what Wa-sa-wa had on

his feet. I think he saw the snowshoes before he saw Wa-sa-wa.

A crowd of wondering spectators gathered about Wa-sa-wa. All pointed to the strange things on his feet. They asked among themselves: "What strange creature is this?"

Wa-sa-wa gave the chief his wampum, but the chief was more interested in the snowshoes; and Wa-sa-wa had to tell him how they had been made for him. He walked on them to show how they carried him upon the top of the snow.

Some clapped their hands, and cried, "What strange bird is this?" Wa-sa-wa was the hero of that day.

At last the chief gave Wa-sa-wa his reply on a piece of birch bark; and with this safely concealed in his clothing, Wa-sa-wa began his homeward journey. O-a-ka-na had not been seen.

At last, in great joy, Wa-sa-wa came in sight of his home. Great was the surprise that greeted him there. No one could believe he had really been so far as the Northland. Even when Wa-sa-wa gave his chief the bit of birch bark he had brought from the chief of the North, the aged man shook his head. But when he had read the

message in the pictures Wa-sa-wa had brought, the old chief nodded his head; and looking down at Wa-sa-wa's web-footed moccasins, he smiled.

Wa-sa-wa knew then it was well, and that he had won the race.

No one had heard from O-a-ka-na.

The Maid with the Laughing Eyes would now be his bride. The old chief agreed to this. He would be proud of such a son-in-law.

Wa-sa-wa had to show how he could walk on the snow. These feats delighted them all.

Every warrior wanted a pair; and so the Maid with the Laughing Eyes showed the squaws how to make them. Busy fingers began work at once; and before another sun had set, every warrior in the village had a pair of snowshoes!

What merry times followed; but the merriest of them all was the wedding of Wa-sa-wa and Laughing Eyes. Every one was happy; but the bride was the happiest of all.

All this happened before O-a-ka-na returned; and you may judge of his disappointment; but he could not help himself. And this is the story of the first snowshoes ever made.

—*Rilma Marion Browne*

PIONEER TRAVEL

The first settlers who came to America lived in the lowlands along the Atlantic Ocean. They did not go farther west at first because of the dense forests and the high mountains which made it hard to travel from east to west.

After a while, hunters and fur traders began to go deeper and deeper into the wilderness back of the mountains. They often returned with wonderful stories of the rich land and the plentiful supply of game they had found in the West. It was not long, therefore, before some of the more daring families decided to move into the fertile West and make their homes there.

Many of the pioneers floated down the rivers in flatboats. These boats were really large flat rafts with a tent or a little house on each one of them. Two or three families lived on each one of these boats as it floated down the river.

Flatboats could not go very fast for they simply drifted down the river. The oars were used only to guide the boat. Often the flatboat stuck fast upon a sand bar and the people had a hard time to push it into the water again.

The journey down the river was full of danger.

The Indians did not like to have their hunting-grounds taken by the white settlers; so they were always hiding along the shores, watching for white people and trying to capture and kill them.

The pioneers who traveled by land had just as dangerous a journey. They had to fight both Indians and wild animals. They packed their household goods on horses. The pioneer's wife and the small children rode on the back of a gentle old horse. The rest of the family walked. Often the pioneer and his sons had to chop down trees and clear a path before they could get through the thick woods.

It was safer for several families to travel together. In some places where roads had been made through the wilderness, long caravans of settlers might be seen slowly making their way to the unsettled West. Many of these settlers traveled in big covered wagons drawn by oxen, horses, or mules. They could carry all their household goods in the covered wagons or prairie schooners as they were sometimes called. At night they slept in the covered wagons.

The men took turns at guarding their camp at night. They had to keep the wolves and the

wildcats away and also watch for Indian attacks. Sometimes when the Indians saw the horses and the oxen that the settlers had, they longed to take them away from the settlers. But they saw the number of the white men. They saw them shoot with their terrible guns. They knew the white men kept careful guard both night and



day; so the Indians feared to attack them unless they greatly outnumbered the white men.

Sometimes the Indians fought the white people from a safe distance by means of prairie fires. They set fire to the dry grass and underbrush not far from the pioneers' camp. The breeze quickly swept the fire along and although the pioneers bravely tried to fight the fire, it often destroyed the whole caravan.

Other things happened on the trail which called for just as much courage as facing Indians. Men who were injured had to submit to operations with such crude instruments that to hear about them would make us shudder.

When a band of pioneers who had traveled from the East into the wilderness found a good place for a settlement, they built first of all a stockade. This was a long fence about twelve feet high built in the form of a square. It often contained an acre of ground. Heavy wooden gates were made to let the people in and out of the stockade. At each corner of the square there was a two-story log house, or blockhouse. The pioneers could shoot at enemies through loopholes in the upper part of these blockhouses.

Most of the pioneers built their log cabins inside of the stockade and kept their horses and cattle in there, too. They were not in much danger in there for the Indians could neither get in nor shoot through the thick walls. The men had to go outside the stockade to hunt and to plant and tend their crops of corn, beans, and potatoes. But at night or at the first sign of danger all the pioneers would gather together in the stockade.

These early pioneers did not spend all their time in working on their farms, in hunting wild animals, and in fighting Indians. In the evening after the day's work was over both old and young pioneers danced and played games together; and what good times those were! Sometimes they had parties for making sugar and husking corn. At other times, they had house raisings, house warmings, and quilting parties.

The pioneers had very little money. They had to be content with coarse food, coarse clothing, and rude log cabins. But they had learned to help one another. They had learned that several families working together could do what one family could not do alone.

THE ATTACK ON FORT BRADFORD

PART I

The little settlement of Bradford was getting ready for an Indian attack. That very morning a swift messenger had brought to the fort the news that the Indians were on the warpath.

"The warriors of Chief Little Turtle and Chief Red Jacket," he warned them, "have joined together to destroy the palefaces and get back these hunting grounds. Far north of here, they have taken a half-dozen forts by surprise and killed or carried off the settlers. Within a week, unless they are beaten back, they will be testing the strength of your blockhouses."

This news came like a blow to the settlers. It had been so long since they had had any trouble with the Indians that they had grown careless. There was very little gunpowder in the fort. The men's rifles and a single cannon, *Old Betsy*, were the only firearms they had. There was not even enough flour to feed the settlers in case the Indians should keep up a long siege.

So a dozen men were hastily dispatched to a fort fifty miles southeast of Bradford where it

was thought they could obtain some gunpowder, another cannon or two, and possibly some soldiers to help drive off the Indians. The settlers who lived in log cabins at short distances from the stockade were sent word of the coming Indian attack. And Abner Jones and Jabez White, lads of sixteen, were chosen to take some grain to a water mill four miles away to get it ground into flour. The men and the women who were left at the fort had work to do, too, carrying barrels of water in from the spring, driving the horses, cattle, and sheep inside of the stockade, and bringing in hay to feed them. Some of the men filled big sacks with earth which could be piled against the inside of the doors of the fort to strengthen them against any attack by the Indians. Others set to work to melt up some lead and to mold it into bullets.

The two boys, Abner and Jabez, were proud of the confidence the settlers had shown in them. They knew that there was some danger attached to their errand. Although the Indian attack was not expected for a few days, there might already be a spy or two in the neighborhood, finding out just when and how to attack the fort. Abner's

father—the settlers always called him Colonel Jones—had cautioned the boys not to shoot any game lest the crack of their rifles be heard and to keep a sharp lookout.

“But then, lads,” he had ended, “why should we worry about two true woodsmen, quick and wary like you? You’ll be back safe within the stockade shortly after dark.”

The two boys had safely reached the mill, ground the grain into flour, and had started on their way home, carrying the heavy bags of flour with them without seeing a sign of Indians. But at one place in the woods, there was a little stream which the boys had to wade across. They were just ready to step into the water when Jabez’s sharp eyes caught sight of an Indian moccasin floating in the water. Both the boys, without a word, pushed back into the bushes along the edge of the stream. They had noticed that the moccasin was scarcely wet; they knew that it must have just fallen or been thrown into the stream. That meant that an Indian, or perhaps several Indians, were near.

The boys quickly hid the sacks of flour under some bushes and took their loaded rifles in their

hands They were afraid that the Indian might already have seen them. Perhaps he was then creeping up on them ready to scalp them or to take them captive. All the terrible stories they had ever heard of cruel Indian deeds flashed through their minds; so they stood there, alert, straining their ears to catch even the cracking of a single twig; but all was quiet in the last shadows of twilight.

At last Abner ventured to say softly to Jabez, "If you are willing, Jabez, let us creep along the stream and see whether we can find the Indian who lost his moccasin. Perhaps the two of us can give him a scare that will send him away from these parts for a while."

"And perhaps we'll have some news to carry back to the fort," replied Jabez, who was looking forward to a victorious encounter with the spy. Two sharpshooters like Abner and himself would certainly be a match for a surprised Indian.

The boys crept cautiously along for some distance, taking care not to make a sound; but they did not hear or see anything of Indians.

"The folks at the fort," Abner was saying, "will be worried to death if ——"

But a quick gesture from Jabez who was in the lead silenced him. The boys had come upon not one Indian but a whole company of them!

PART II

It was a dangerous position in which the boys found themselves. Ahead of them, about a hundred yards away, a great many Indians, naked to the waist and glistening with gaudy war paint, were gathered around three fires of blazing pine knots. They had evidently just finished feasting together for they sat there smoking their pipes without saying a word. It was so quiet that Abner and Jabez scarcely dared to breathe lest they should be heard by one of the Indians who was standing guard at the outside of the circle.

At last after what seemed hours to the two boys, some of the warriors sprang up and piled more wood on the fires. Other Indians drove a painted post into the ground. Then an Indian, who the boys thought must be the chief of the tribe, leaped into the open space, brandished his hatchet, and began chanting his own brave deeds and those of his fathers. He acted out the deeds he described and struck at the painted post as if



it were an enemy. Warrior after warrior joined him, until at last almost the whole band of about two hundred men were dancing, shouting, waving their weapons, striking at the post, and filling the forest with their yells. Evidently they thought themselves far enough away from the fort to be safe.

Abner and Jabez had so often heard the settlers tell about Indian habits and ways that they knew at once what was happening. This was the Indians' war dance. They might spend

the whole night at it; but when they had finished their dance, they would begin their attack; and the nearest settlement, the boys knew, was Bradford.

It was quite clear that the messenger who had brought the news that the Indians were on the warpath had not known that the band of savages was so near. The settlers would **not** have dared weaken their defense by sending away a dozen men if they had known that they would be attacked so soon.

Jabez and Abner must get back to the fort and warn the settlers. The next day they must take their places at the loopholes in the blockhouses and try to kill some of the savages whom they were watching at this very instant; but they did not dare to move from their places until every Indian had joined in the dance.

While all the warriors were wildly yelling and dancing, the boys carefully crept away. They did not even stop to pick up the sacks of flour, for they must lose no time in getting back to the fort. They must warn the settlers to be ready for an immediate attack.

PART III

At daybreak, when the Indians made their appearance, all the settlers were ready for them. "Hi-ya-ya-ya! Hi-ya-ya-ya!" the Indians' terrible war whoops rang out, and a shower of their arrows rained down upon the fort.

The settlers had placed Colonel Jones in command.

"Remember, boys," he had told them, "the bullet that misses by an inch is as useless as a bullet that never leaves the gun. We have no powder to waste."

So the settlers were holding their fire, waiting for the Indians to make an attack. They had dragged the cannon, *Old Betsy*, to the blockhouse at the corner of the fort where the Indians seemed most likely to attack.

Suddenly with louder yells than ever, the Indians attacked from all sides. Bang! went the guns of the settlers. Boom! roared *Old Betsy*. Half a dozen Indians had fallen killed by the settlers' bullets; but they had come close enough in their attack to shoot a dozen flaming arrows into the roof of the fort. If the flames were not put out at once the blockhouse would soon be

afire. Burning was the Indians' easiest way of fighting against the stout log forts.

Without delaying an instant, a brave young pioneer, William Jones, climbed upon the roof and smothered the flames, but he was killed by an Indian arrow before he could climb back down.

The settlers could not stop to mourn the loss of this brave young fellow. They were too busy dragging *Old Betsy* across the stockade to another blockhouse. Soon from that corner of the fort *Old Betsy* roared again and scattered a load of grape shot upon the savages, who retreated howling with pain.

From corner to corner of the fort, the settlers dragged *Old Betsy*, fired it at the Indians lurking at the edge of the clearing, and then dragged it to another corner. The Indians did not imagine that one cannon could be giving them all this trouble. The women and the children were reloading the men's rifles. This helped the men to fire so rapidly that the Indians thought the fort was well defended. How surprised they would have been to know that they outnumbered the white fighters three to one!

Hour after hour the fight went on. As soon as

one of the red men peeped from behind a tree, his skull was in danger. One by one the Indians fell; and as the number of their dead grew, the Indians decided on a last great attack. They would set fire to the fort! They would trap the white settlers within the burning walls of the stockade!

And this is how they set about doing it. At some distance from the fort they had found a wagon belonging to one of the pioneers. They



loaded it with bundles of dry flax, sheltered themselves behind it, set the flax on fire, and wheeled the wagon toward the door of the fort.

The settlers understood the Indians' trick. "Bring a barrel of water," Colonel Jones ordered, "and roll it up to the loophole immediately above this doorway. When I give the word, empty the water upon the burning flax, and you other men, hold your fire until the Indians jump out from behind their shelter."

The Indians crouching behind the smoking flax had safely pushed the wagon up to the stout logs which formed the door of the fort. Then as the flames burst out and licked at the logs, the Indians gave a series of whoops and dashed from behind the wagon and the nearby trees.

"Now, boys!" called Colonel Jones.

There were flashes from the loopholes, the roar of *Old Betsy*, and the sizzle of water upon the dying flames. The Indians had failed in their last attack. The little band of Indians that was left gave up the battle, gathered up their wounded warriors, and retreated into the forest. They had met more than their match when they met the alert settlers and *Old Betsy* at Fort Bradford.

HUNTERS

Many of the pioneers did not go to the West to settle down and make their homes there. They went there to roam about trading with friendly Indians or hunting for wild game. This was their work.

Each of these hunters wore clothing well suited to the woods. He wore a hunting shirt of homespun cloth or of deerskin; and his shirt was held in place by a belt at the waist and it was fringed where it fell to the knees. He wore a cap made of a squirrel or a raccoon skin with the bushy tail hanging down behind. His leggings and moccasins were made of deerskin. Clothing like this could not be easily torn or worn out.

His rifle was a part of the hunter's dress. He always carried it with him. A full powderhorn and a polished bullet-pouch swung from his shoulders. From his belt hung a sharp hunting-knife to use in skinning any animals he might shoot, and a hatchet to use in clearing a way through the forest.

Usually a hunter had no cabin or any shelter in which to sleep. He would build a camp fire to roast his food and to keep off the wild animals.



Then he would roll himself up in a buffalo skin, and with a loaded rifle at hand would sleep all night by the fire. He had to be a brave man you can see, to protect himself from wild animals and unfriendly Indians.

In the winter and early spring, when the animals' fur was the thickest, he hunted bears, beavers, and other fur-bearing animals. But if the animal's skin was to be made into leather, like deerskin, the animal could be shot at any time, so deer hunting was his chief work in the summer and the fall.

When a band of hunters got so many furs that it was difficult to carry them along, they

would choose a place to hide them until they came past on their return journey. They had to hide every trace of their work so that the Indians would not find the furs and steal them. In order to do this, they usually picked out a spot on a high bank of earth near a stream. First, they cut the sod carefully and put it to one side. Then they dug a small cave in the bank, throwing the earth from the cave into the stream. Into this big hole they put their furs, first wrapping them in skins. Then they carefully replaced the sod. It was all done so neatly that even the sharp-eyed Indians could not find the place.

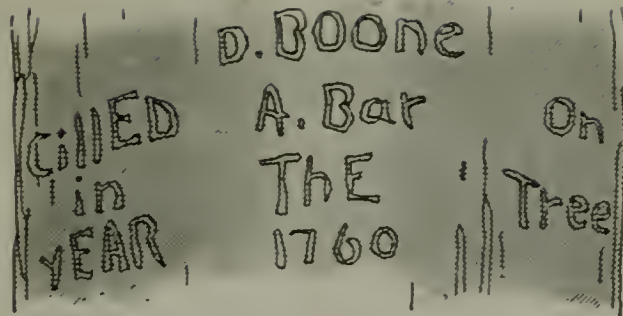
These hunters were very accurate in their aim. They had learned just where to aim to kill an animal with one shot. They thought it was a disgrace to waste a single shot. They were also quick in reloading their rifles. Some hunters carried an extra bullet in their mouths so that they could reload instantly after killing an animal. Before they even stopped to pick up the dead deer or wolf, they backed up to a tree, so that they would not be surprised by an enemy. There they reloaded their guns and were ready for more game.

DANIEL BOONE

One of the greatest pioneers and explorers was Daniel Boone. His boyhood had been spent in the backwoods, where he had learned to know the forest for miles around. He could name the trees at a distance by their form and the color of their leaves. When exploring new regions he had learned to tell his way by the direction of the sun or by the thick moss on the north side of the trees. He was a hunter from the time he was old enough to hold a gun. He knew the habits and the haunts of both the wild animals and the Indians.

By the time he had grown to manhood, he was well fitted to become a pioneer in the wilderness west of the mountains.

With five of his friends, Daniel Boone tramped across the mountains and hunted in that new region which was full of wild animals and savage Indians. Here they hunted the buffalo for the first time and came near being run down by a herd of them. One day Boone killed a bear. He cut the following words in the bark of a big beech tree which remained standing there until a few years ago:



You can easily see that Boone could hunt much better than he could spell.

After a month's hard tramping these hunters reached the mountains that overlook the fertile valleys of Kentucky. As they stood looking at the beautiful scene, Boone said: "Boys, this is God's country. This is where I want to live. I'm going to bring my family and my friends to this beautiful land."

Boone did not know all the adventures that would happen to him before he could return to his wife and children. He and a companion were captured by the Indians but managed to steal away one night while the Indians slept. They could never find any trace of the four men who had crossed the mountains with them. Later Boone's companion was killed by the Indians.

At one time Boone himself was chased by the Indians. He could see them in the distance trailing him. "They are following my tracks," he

said to himself. "I must throw them off the trail." So he caught hold of a long wild grapevine that dangled from a tall tree and swung himself away out in the air. Then he dropped down. When the Indians came to the place they could not follow his tracks; so Boone escaped.

At last after an absence of two years Boone reached home. Everyone wanted to hear of his adventures and of the rich land he had found. Boone gave such a glowing account of Kentucky that many of his friends and relatives decided to move to this fertile country with the Boones.

It took more than a year to sell their farms and to get ready to start for the new home in the wilderness. But at last they began their journey. They had crossed two mountain ranges and were approaching the third. Suddenly a band of Indians made a fierce attack upon them. The pioneers charged upon the savages and forced them to flee. But six of the pioneers' boys had been killed in the first attack. Overcome with grief and fear, the band of pioneers would not go on. They returned to their old homes. Boone led them back; but he did not forget his plan to settle in the fertile valleys of Kentucky.

THE ROAD THROUGH THE WILDERNESS

Several months later Daniel Boone hurried to his home in great excitement. He had good news to tell his wife.

"Becky," he called out to her as soon as he entered the log house, "I have great news for you. I have agreed to take a band of men with me and clear a road into Kentucky."

"A road?" his wife asked in surprise.

"Yes, a road wide enough for wagons and pack horses. I am to select two or three dozen men to help me. They will be paid good wages—thirty-three cents a day to every man!"

"When the road is completed," Daniel Boone continued, "and when there is a strong fort built at the Kentucky end of it, I'm coming back to get you and the children. We'll have our home in the beautiful West yet."

It took a great deal of work and patience to open the road through the wilderness. In some places trees had to be cut down, and the ringing of the axes was heard all day long. In other places the road crawled along open ledges. For nearly three weeks the men worked, undisturbed

by the Indians. Then one night when they had reached Kentucky, and the road was almost finished, the Indians attacked them. Although the men succeeded in driving the Indians off, they could still hear the yell of the warriors in the distance. The Indians were trying to frighten the settlers and make them turn back again.

“We must stop our work on the road,” said Boone to his men, “and build a fort.”

So the men fell to work with a will and within two weeks they had a stockade with four strong blockhouses completed. The men called the fort Boonesborough in honor of Daniel Boone. Before long Boone and some of the other men brought their families to the fort to live. Crops were planted in a clearing outside the stockade. At last Boone’s dream of settling in Kentucky had come true.

Not long after Boone had settled at the Fort in Kentucky, he had another exciting adventure with the Indians. The people at the fort needed salt; so Boone and some other hunters went to the Blue Licks several miles from Boonesborough to get some salt. At this place there were springs where the water that came up was very salty.

Because animals that wanted salt came here to lick the ground around the spring, it was called a salt lick. In order to get the salt the men boiled this salt water a long time, so long that only the salt was left in the kettle. They were busy at this work when some Indians rushed out, captured Boone, and carried him many miles away.

Blackfish, the chief of the Indians, liked Boone so well that he decided to adopt him. So Boone was taken to a stream where his body was bathed many times in the hope that the white blood would be washed away. Then his body was stained a reddish brown with the juice of berries. A great deal of the hair was pulled from Boone's head, leaving his scalp lock looking something like that of the Indians. At a feast which followed, Boone was given a name, "The Man With the Long Rifle," and declared to be a son of Chief Blackfish.

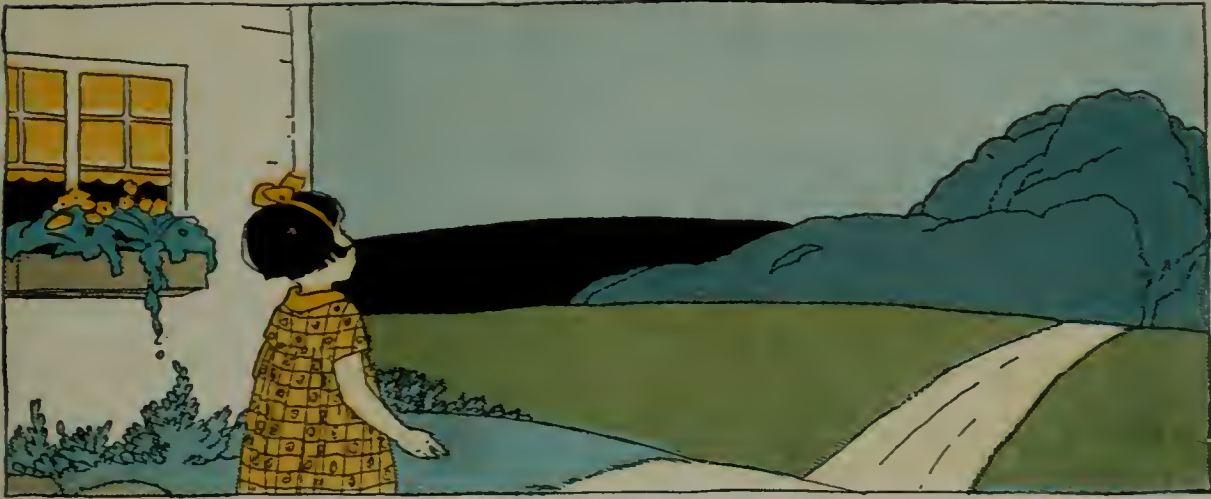
Boone, you may be sure, watched closely for a chance to escape. He pretended to like the Indian way of living. He did this in order that the Indians would not watch him so closely. After a while the Indians let him go hunting.



They made him show some game for every bullet they gave him. But he was quite clever. He cut the bullets in two and used only half a charge of powder. In this way he saved some ammunition to use in making his escape.

At last, early one morning, he pretended to be chasing a deer. By running in streams of water he kept the Indians from following his tracks. Finally after many hardships he got back to Boonesborough. He found that everyone there had given him up for dead.

What a rousing welcome they gave their old leader!



O LITTLE ROAD

O little road, where do you go?
I saw you start a while below,
And then you climbed the woody hill;
It almost seemed you'd reach the sky,
While down below so patient, I
Am standing, waiting for you still.

Will you sometime turn round and then
Hurry back to home again?
Or will you always want to stray
To richer lands far, far away—
And never once look back to see
This little house and waiting me?

—Annette Wynne

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WESTWARD HO!

The vast region of forests, prairies, and plains west of the mountains attracted to it a constant stream of settlers and explorers. Before many years had passed, the territory that Daniel Boone had explored was no longer a pioneer country; little by little the frontier had been pushed still farther west by other pioneers like Boone.

Some explorers mapped out the rivers of this unknown West and discovered passes over the mountains. Other pioneers built forts and made expeditions against the roving tribes of Indians. The great herds of buffaloes that swept over the plains attracted many hunters. A great many persons, however, went to the frontier country to find rich soil and free land and to make their homes there.

One pioneer who had traveled far west to California built a mill to grind the grain that the farmers raised in that district. In the bed of the mill race he saw some gleaming bits of metal about the size of grains of wheat. He thought that perhaps he had found gold. Although the other settlers laughed at him, he finally picked up some of the shining bits of metal and then rode

forty-five miles on horseback to get a man to test the shining sand. It *was* gold!

When the news of the discovery of gold finally reached the people in the East, everyone was eager to seek his fortune in the far West. Merchants, farmers, blacksmiths, printers, and carpenters dropped their work and sought the gold fields. Sailors left their ships. Even some of the women started to the West. There had never been so many persons eager to reach an unsettled land.

But how were they to get to the gold fields? Some who were able to secure supplies and passage made the long rough trip by sea. This was a voyage of more than thirteen thousand miles. They had to go around Cape Horn at the southern point of South America. At that time and for years afterwards, this trip was spoken of as "Going 'round the Horn." The ships were overcrowded. Sometimes men fought like wild animals to secure the few places that were left on board. Again a man might wait for weeks for a vessel only to find that every place on it was already taken.

Others made the trip by boat to the Isthmus

of Panama and crossed the Isthmus on horseback and continued the journey by boat. The distance across the Isthmus is only about fifty miles, but by crossing there, the trip from New York to San Francisco is nearly eight thousand miles shorter than it is by going around the Horn.

By far the larger number, however, traveled to the West by land. This was the cheaper way of going. Many journeyed in caravans of lumbering prairie schooners drawn by oxen. Others rode on horseback. Some walked, carrying their baggage on their backs. Many had no idea of the great width of our country, of its arid plains, nor of its mountains which had to be crossed. They did not know that they must travel more than two thousand miles exposed to hostile Indians, to starvation, thirst, and illness.

Thousands perished on the way. Many died of hunger, hardship, and by Indian arrows. The bones of men and oxen and horses and mules dotted the trail for hundreds of miles. Some of the pioneers abandoned trunks, stoves, clothing, furniture, and barrels of food along the road in hope that with a lighter load they could reach the gold fields.



Life was hard for those who lived to reach California. There were crowds to be fed and very little food to feed them as only a few farmers were at work. Everything the miners ate or wore or used had to be carried long distances in small ships or by the long overland trail; so prices of things were high. A chicken brought sixteen dollars. Potatoes, eggs, and onions were sold at one dollar apiece. A pair of high boots cost fifty-eight dollars. A newspaper, even if it were a month old, sold for a dollar. But, as many of the miners made five hundred dollars a day, they could afford to pay the high prices. Because gold was first discovered in California in 1849, anyone who joined in the first mad rush for the gold fields was called "A Forty-niner." There are many exciting stories of the days of "Forty-nine."

For fifteen years after the discovery of gold in California, bands of hardy and daring pioneers continued to discover new mines in hundreds of places in the western region. Mining camps, villages, and cities grew up. People soon began to feel that they must have better ways to travel to the West and also to hear from their friends in the East.

TRAVEL BY STAGECOACH

For a good many years before the discovery of gold in California, stagecoach lines had been established between the principal cities of the East.

Nine or ten people could ride inside one of these stagecoaches. One or two additional passengers could sit outside the coach high up beside the driver. Mail and baggage were carried in a separate compartment on the back of the stage.

Drawn by six or eight galloping horses and glistening with its bright red paint, the stage was a cheerful sight. Along the road were taverns where meals were served to the passengers, and inns where they could spend the night. In fine weather, traveling by stagecoach was not unpleasant.

In cold or rainy weather, however, the coach was far from comfortable. The curtains kept out only a part of the cold and the rain. There were many stumps and mudholes in what was then called a road. When the coach stuck in a mudhole, the passengers had to help lift it out or wait for other teams to come and drag it out.

The roads were so rough that the coach was often in danger of tipping over. One traveler has said that the driver would often call to the passengers to lean out of the coach on one side or the other to keep it balanced. The driver would cry, "Now, gentlemen, to the right"; and the passengers would lean out on the right side as far as they could; or, "Now, gentlemen, to the left"; and over the passengers would swing to the other side.

After the rush to California, the clumsy slow-moving prairie schooner was not fast enough to carry the passengers, mails, and express. Before long, swift stagecoaches were running over established routes to the West.

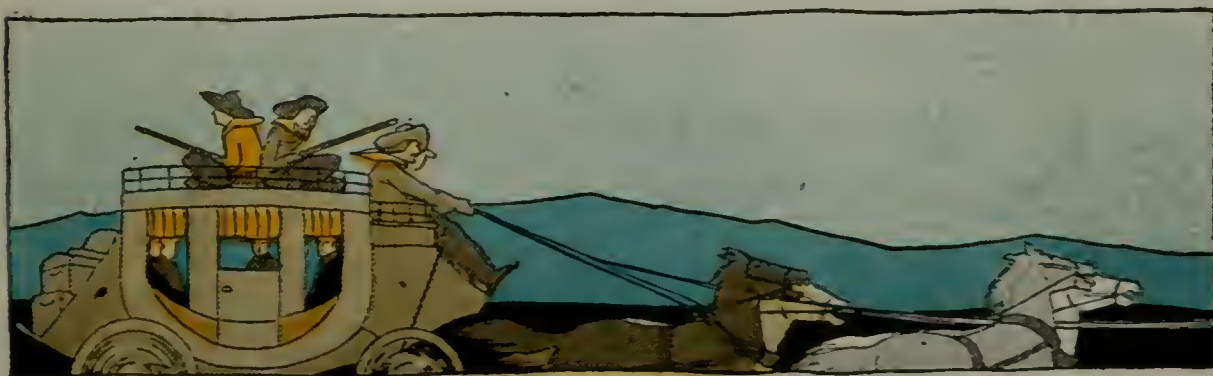
But if travel by stagecoach was uncomfortable in the East, it was even more so in the West. Towns were few and long distances apart. As the coaches traveled both night and day, the passengers had to get what sleep they could while sitting upright and hanging on to the straps.

Stops just long enough to change horses were made every ten miles. Stations were established along the road to serve meals to the passengers. A stop of only ten minutes was made for a meal;

but as the bacon, coffee, and hardtack were often none too good, perhaps ten minutes was long enough.

Sometimes a squad of soldiers would escort the stagecoach through a region where the Indians were hostile. Usually, however, the driver and the passengers had to rely on their own rifles to protect themselves. Every trip had some exciting adventure—an attack by Indians, a breakdown or an upsetting of the coach, trouble with a drunken driver, a blizzard, or the fright of the horses at some wild animals. No wonder that travelers in those days often made their wills before starting on a journey!

Even the swift western stagecoaches would seem slow to us today. The stagecoaches required three weeks to run from St. Louis to San Francisco, a distance our fast trains now cover in three days.



THE PONY EXPRESS

The settlers in the new West were eager to hear from their friends back in the East. Consequently, as the country became settled, men were hired to carry the mail between the different towns. These postmen did not start out until they had enough letters to pay the expenses of the trip. They also carried packages and even led horses and oxen from town to town in order to earn extra money. One old postman used to knit stockings and mittens as he jogged along with the mail; so you see that the delivery of mail was not very speedy in those days.

Arriving at a town, the postman would take the letters to the main coffee-house and lay them on a table. Anyone who was expecting a letter went to the coffee-house, looked through the pile of letters, and took any that belonged to him. There were no postage stamps in use then; the amount due for carrying the letter was stamped on the outside of the letter. The person who received the letter paid this amount. Letters might lie on the table for days before the right persons came to claim them.

This sort of mail service might do for towns

that were not too far apart. But people who were living far apart began to complain about the slowness of this method of delivering mail. Where stagecoaches had been established, they carried the mail with more swiftness. But for important letters and dispatches even the swift-traveling stagecoach was far too slow. In order to meet the demand for quicker mail service, the Pony Express was started.

A company of men secured five hundred swift, strong ponies, built almost two hundred relay stations between the East and the West, and employed men to look after them. Then they carefully selected eighty of the best riders on the frontier.

These pony riders were men of light weight; they had to be alert, brave, and cool in times of danger; often they were only boys from fourteen to eighteen years of age. Each rider had to cover a section of the trail about fifty miles long. They changed their horses about every fifteen miles. The riders made no stop to eat or rest until they reached the end of their journey.

Each express rider wrapped the mail in oiled silk, for he sometimes had to swim streams in

order to avoid Indians. He carried these silk-covered bundles in two small leather pouches strapped to the saddle. Each letter was written on the thinnest tissue paper to save weight and bulk. At first, the charge for each letter was five dollars, but later it was reduced to one dollar.

These brave riders faced many hardships and dangers. No matter how cold or stormy the weather, they had to be ready to leap into the saddle and dash forward. They had to find their way along a narrow zigzag trail over the mountains. Often hostile Indians attacked them. But although their schedule was twice as fast as the stagecoach, they never failed to keep up to the schedule, except when the riders were killed by the Indians. On one occasion, after his rider had been killed, a pony carried the mail in safety to the next station. The company boasted that the Pony Express lost only one mail in its entire history.

Probably the most famous of the pony riders was William F. Cody, who is better known as Buffalo Bill. Because of his father's death, Cody early became the chief support of his family. When he was fourteen years of age, he met an



agent of the company which was starting the Pony Express.

“Cody,” the agent said to him, “we are starting a pony express between the East and the

West. We need alert young men to work for us. We want you, for you are a splendid rider. You will have to ride forty-five miles a day with a change of ponies every fifteen miles. We will pay you a hundred dollars a month besides your board. Will you take the job?"

Cody knew that his life would be in constant danger from Indians and robbers; but without a moment's hesitation he answered, "You bet. I'll be glad to do it."

It was not long before Cody made the longest pony express ride on record. After a trip of more than a hundred miles, he arrived at the relay station only to find that the next rider had been killed in a fight. Someone must carry the mail. Cody did not hesitate. He changed ponies and was off on another hard, dangerous ride. For some reason he also had to make the return trip, so that in all he covered 322 miles without stops except to secure fresh ponies and to swallow one hasty meal. And again, the mail went through on time.

With the coming of the railroad and the telegraph, the Pony Express was discontinued, as it was no longer necessary.

THE FIRST RAILROADS

There was much laughter and jeering and some hard feelings, too, when the news of the first steam railway was heard. People had used railways before that time, to be sure, but the cars were drawn by horses. The railway cars were quite like stagecoaches except that they ran on wooden rails. But now there came news of a new method of traveling—"traveling by teakettle" some people called it. Locomotives which breathed out steam and flame had taken the places of the horses.

"They are such noisy locomotives," one farmer complained, "that the hens will be frightened and will not lay any eggs."

"And the terrible smoke and sparks that belch forth from their smokestacks," added another farmer, "will ruin the crops and burn up everything."

"If the new steam railroads *are* successful, what will we farmers do?" asked another. "Our horses will soon be useless. They will have to be killed; then there will be no demand for our hay and oats."

The stagecoach owners, too, were excited over

this new invention. They realized that their business could not be continued if the cars were to be drawn by steam. "Give us a chance," they begged, "to show that the horse car is better than the steam car." So a nine-mile race was arranged between one of their swift gray horses and the new engine.

Which do you suppose won? The horse started more quickly, but at last the puffing little engine got under way. For a while they raced along side by side. The horse began to grow tired. It seemed certain that the engine would win. Suddenly a pulley slipped and the train stopped. The gray horse won the race. How the stagecoach owners laughed and jeered!

Before long, however, the railroad men had their turn to laugh. With patience and energy these inventors kept working away at the railway engines. Finally they were successful. No longer could the gray horse beat the train.

How strange one of the early trains would look beside one of our modern express trains, which travels a mile a minute with its huge engine and its long train of mail and day coaches, sleeping, dining, and parlor cars.



The engine of those days had four light driving wheels and a tall smokestack. The wood, which was used for fuel, and also the water, were carried on a small platform behind the engine. As the engine had no cab, the engineer had to drive facing the winds and storms. For that reason, the locomotives were not always used in rainy weather.

The three or four passenger cars behind the engine looked very much like stagecoaches. Fifteen persons could ride inside each coach. Other passengers could perch on the tops of the coaches. The windows were simply openings. There was no way of keeping out the smoke and the cinders. Occasionally the engineers had to stop the train in order to help put out a fire that had been kindled in a passenger's clothing by a spark from the engine. The last car of the train was a high, open van where all the baggage was piled and covered with oilcloth.

At first there was no way to light or heat the trains. Later lamps and stoves were used. These first trains had little speed; they crept along at only four or five miles an hour.

But little by little, these railroads were improved. They played a great part in developing our country. They enabled men to settle on lands far from the rivers and in the distant West. They made it possible for people to have goods shipped from far away regions. Although it is only about a hundred years since the first railway locomotive was built in the United States, we now have more than 250,000 miles of railway.



FROM A RAILWAY CARRIAGE

Faster than fairies, faster than witches,
Bridges and houses, hedges and ditches;
And charging along like troops in a battle,
All through the meadows, the horses and cattle.

All the sights of the hill and the plain
Fly as thick as driving rain;
And ever again, in the wink of an eye,
Painted stations whistle by.

Here is a child who clambers and scrambles,
All by himself and gathering brambles;
Here is a tramp who stands and gazes,
And there is the green for stringing the daisies!

Here is a cart run away in the road,
Lumping along with man and load;
And here is a mill and there is a river:
Each a glimpse and gone forever.

—*Robert Louis Stevenson*

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THE TELEGRAPH

What a wonderful instrument the telegraph is! By means of it we can easily send a friendly message or some business information to a person in the next town or even clear across the continent in a few seconds. Most of the news printed in our newspapers is sent by telegraph; we can read of happenings in distant places almost as soon as those happenings have taken place. Our weather reports are sent by wire. In this way farmers and sailors and anyone interested in the kind of weather may learn when a severe storm or a cold wave is approaching.

At first people would not believe that messages could possibly come over a wire. They waited until the mails brought the same news before they would believe it. Even then they had queer ideas about the telegraph. "How large a bundle can be sent over the wires?" one man inquired. A woman who saw a telegraph pole planted in her yard complained, "Now I suppose I can't punish my children any more without the whole world knowing about it." She did not know that it was necessary to have operators to send or receive messages.

At first very few messages were sent. In consequence, the operators had to work for nothing. Because they had no money, they often slept under their tables at night. After a while people became convinced that the telegraph could be depended upon; so the wires were gradually extended until today there is a regular network of telegraph wires over the country.

Should you like to know something of the man who invented this wonderful instrument? His name was Samuel Morse. He had studied both painting and sculpture and expected to earn his living as an artist. But as there was little or no demand for this kind of work he had plenty of time for other things. He and his brother spent many of their evenings planning an improved force pump for fire engines; but the pump was not a success. Morse then began tramping from town to town, painting portraits for a living for himself and his three children.

All the time, however, he was thinking of other inventions. One evening he was talking with a group of men about some recent experiments with electricity.

“Do these experiments mean,” one man asked,

“that an electric current passes through any length of wire in less than a second?”

“Yes,” replied another man, “it passes almost instantly over *any* length of wire.”

“If electricity can be sent ten miles without stopping, I can make it go around the globe,” said Morse. “I believe that messages could be sent by electricity.”

That very night Morse began working on his invention. For twelve years he planned and worked on it. During all these years he had to earn money for the support of his three motherless children; so he had to give much time to his painting, too. But he did not give up.

There was no such thing as telegraph wire in those days. The ladies wore a kind of high bonnet, called a “skyscraper,” the front of which was stiffened with wire. Morse found that this wire made excellent telegraph wire; so he bought up all the bonnet wire on the market.

He also had to invent an alphabet to use in sending telegrams. It consisted of dots, dashes, and spaces. For instance, a dot represents the letter “e”; a dash, the letter “t.” Here is Morse’s whole alphabet code:

A	• —	M	— —	Y	— • — —
B	— • • •	N	— •	Z	— — • •
C	— • — •	O	— — —	1	• — — — —
D	— • •	P	• — — •	2	• • — — —
E	•	Q	— — • —	3	• • • — —
F	• • — •	R	• — •	4	• • • • —
G	— — — •	S	• • •	5	• • • • •
H	• • • •	T	—	6	— • • • •
I	• •	U	• • —	7	— — — • •
J	• — — —	V	• • • —	8	— — — — • •
K	— • • —	W	• — — —	9	— — — — •
L	• — • •	X	— • • —	0	— — — — —

As the telegraph ticks off the sounds which correspond to these dots and dashes, the operators write down the messages which are being sent.

Finding the right kind of wire for his telegraph and inventing an alphabet for it were not the hardest part of Morse's work. Many times when he thought that his invention was about completed, something about it did not work out right. He found it difficult, too, to persuade people to lend him money to carry on his work. Often he had to live for days upon crackers and tea because he could not afford other food.

But at last, after having all these trials and discouragements, Morse was successful. Sitting at the instrument that he had himself placed for trial, Morse sent the following message which a friend had chosen: "What hath God wrought!"

Forty miles away the message was instantly received; the telegraph was successful! Morse had given the world a wonderful gift.



THE TELEGRAPH

The wires spread out far and wide,
And cross the town and countryside,
They cross through deserts and through snows,
And pass the spots where no one goes.

But though no feet go out that way
A million words go every day;
Along the wires everywhere
A million words flash through the air.

And if we're happy, if we're well,
The wires far away can tell,
The little words can cross all space
And talk to friends in any place.

—Annette Wynne

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THE WINDS, THE BIRDS, AND THE TELEGRAPH WIRES

Long, long ago, a hundred times as long as anyone can remember, the Great Earth King became so very, very busy about a great many things that there were several things he could not do. So he sat himself down and rested his great head upon his hand, and thought, and thought, and thought, until he decided that he must have some assistance. He would advertise for some messengers! So he seized a great brush, as big as a church steeple, dipped it into the red and golden sunset light, and wrote in big letters so high on the sky, that everyone far and near could read:

WANTED! MESSENGERS!
FLEETER THAN HORSES,
SWIFTER THAN MEN,
TO CARRY MY MESSAGES,
A MILLION TIMES TEN.

and he signed his message simply, "The Earth King." Then he went into his rainbow house

From *The City That Never Was Reached*, by Jay T. Stocking. Published by The Pilgrim Press. Used by permission.

and laid himself down to sleep on his rainbow bed.

He had scarcely fallen asleep, when there came a *rustle, rustle, rustle* at the rainbow window, and a *rattle, rattle, rattle* at the rainbow door. He sprang quickly from his great bed.

“Who be ye?” he asked.

“We be messengers,” came the reply, “come to serve the King.”

Then the King opened the door. There before him stood four of the strangest creatures that he had ever seen. They were so light that they could stand on nothing; they had great wide wings; they had pale faces and gleaming eyes; and they had light garments that floated and flapped and fluttered in the breeze.

“What are your names?” asked the King.

“We are the Winds,” answered the mightiest of the four, “East Wind, West Wind, South Wind, North Wind,” pointing to each in turn and to himself last. “We have come—

Fleeter than horses, swifter than men,

To carry your messages, a million times ten.”

Then the King spoke to them in deep and solemn tone: “The task is a great one. The

King's business is grave and important. My messengers must be swift and faithful. Are ye able?"

Then the four winds piously crossed their breasts with their wings and whispered, "Try us and see, try us and see, try us and see."

So the King tried them.

"Down by the sea," said the King, "far over the mountains, many hours away, there live a fisher folk that I love. Every day the men of the village go forth in their little boats to fish, and every evening they come home with their catch; but of late thick and heavy clouds have hung about them. They have not dared go forth lest they should not reach home again, and their families begin to be in want. Go to them today. Drive away the fog and clouds that the people may be happy again. Quick! away!"

Then the four winds lifted their swift, beautiful wings and were gone. Faster and faster they flew till none could tell how fast they flew. Over the meadows they went and over the mountains. Each tried to outwing the others until it became a fierce and exciting race. So blind and careless were they to everything but their sport,



that they did not notice how they whirled the sand, and broke the trees, and tossed the water. Swiftly through the fishing village they tore, hurling its poor houses to the ground and *crashing, dashing, slashing, smashing* the waves upon the fallen wrecks and the frightened and suffering folk.

Not until they were weary with their furious sport did they remember the errand on which the King had sent them. They retraced their steps as quickly as they could, but alas! to their shame and grief, the village lay in ruins and the people were weeping over their losses.

Then the Earth King became very sad and angry. He brought the shameful winds before his court. "False and faithless winds," he said, in a stern and awful voice, "ye did not do my errand; ye were traitors to your trust; great shall be your punishment. Nevermore shall ye be my messengers, evermore shall ye be my slaves. Away from my sight!"

Then the faithless winds departed from before the face of the King, and in shame and sorrow went moaning among the caves and the rocks by the seaside, and sighing among the

lonely pine trees in the wilderness. Even to this day you may hear the echoes of their moans and sighs.

The Earth King was sorrowful, but not discouraged. Again he seized the great paint brush, as big as a church steeple, dipped it into the red and golden sunset light, and wrote in big letters so high on the sky that everyone far and near could read:

WANTED! MESSENGERS!
FLEETER THAN HORSES,
SWIFTER THAN MEN,
TO CARRY MY MESSAGES,
A MILLION TIMES TEN.

Then he went into his rainbow house and laid himself down on his rainbow bed. He scarcely had taken forty winks of sleep when he heard a *rat-tat-tatting* on the rainbow window and a *rap-rap-rapping* on the rainbow door. Quickly he leaped from his great bed.

“Who be ye?” he asked.

“We be messengers,” came a gentle voice through the keyhole, “come to serve the King.”

Then he opened the door, and there before

him flitted and twittered a company of the most curious little people that he ever had set eyes upon. They had each a pair of beady eyes, a little pointed nose, a set of little scratchy toes, and the softest kind of a coat, fitting as snug as ever any tailor could make it.

“What are your names?” asked the King.

“We are the birds, and our names are many. We saw the King’s sign in the sky and have come—

Fleeter than horses, swifter than men,

To carry your messages, a million times ten.”

Then the King, remembering the Winds, addressed them in very deep and solemn tones: “The task is a great one. The King’s business is exceeding grave and important. My messengers must be swift and faithful, must remember my commands and keep my secrets. Are ye able?”

Each bird laid his little scratchy toes on his little pointed nose and vowed that he would remember the King’s commands and keep the King’s secrets.

“Then,” said the King, “make ready. Far to the north dwells a people that I love. For



many a month they have lived amid ice and snow and the bitter frosts. Now they sigh for warmer days, and I have heard them. I am planning a delightful surprise for them. I am going to carry spring to them. Go, find the warm sunshine and the soft south wind and bid them come at once to the King's court, that I may take them and the spring days to my suffering and discouraged people. Then return with all speed to the King, and remember—do not betray my secret.”

The bird-messengers hastened away as fast as ever their wings could carry them. They summoned the warm sunshine and the soft south wind and bade them make haste to the Earth King.

The birds, of course, turned back as they were commanded; but before they reached home again, each one of them was seized with a strange, restless, uneasy feeling right in the middle of his feathers. It must have been the secret trying to get out. One by one they stole past the King's house under cover of the night and made their way to the north country; and when the morning came, there they were, sitting on the fence posts and in the apple trees, just bursting with the happy secret of the King.

Then the robin pipped, and the bluebird blew;
The sparrow chipped, and the swallow, too:
“We know something,—we won't tell,—
Somebody's coming,—you know well.
This is his name ('twixt you and me),
S—P—R—I—N—G”

The people were very happy when they heard what the birds said, and with much excitement began to get ready for the springtime.

Now, of course, the King knew nothing about all this, and was very happy in thinking of the surprise that he was to give the people. He took the warm sunshine and the soft south wind for

companions, and made his way in all haste to the land of ice and snow. As he arrived, with his delightful secret, as he thought, hidden in his heart, he was amazed to find an old woman sitting in her doorway knitting.

"Why are you sitting here?" he asked. "Why are you not within, warming your feet by the fire?"

"Why, don't you know?" she said, "Spring is coming!"

"Spring?" he asked, almost roughly; "how do you know?"

"Oh," said she with a smile, trying not to look at a robin that turned his back behind the picket fence, hoping that if the King saw him he might think he was an English sparrow, "a little bird told me."

The King walked up the street, looking gloomy enough, and soon came across a gardener with his rake, uncovering the crocuses and the daffodils.

"Why do you do this, my good man? Surely your flowers will freeze. You had much better be covering them up."

"Oh, no," he said, straightening his bent back, "Spring is coming."

"Spring," said the King; "how do *you* know?"

"Oh," said the gardener, with a grin, and a twinkle in his left eye, as he caught sight of a bluebird peeking half-scared around the limb of a nearby apple tree, "a little bird told me." Then the disgraceful story came out that—

The robin pipped, and the bluebird blew;
The sparrow chipped, and the swallow, too:
"We know something,—we won't tell,—
Somebody's coming,—you know well.
This is his name ('twixt you and me),
S—P—R—I—N—G."

My! but wasn't the Earth King disgusted!
And weren't the bird-messengers ashamed to come
when he sternly called them! Each laid his little
pointed nose on his little scratchy toes, and
dropped his eyes and uttered never a word.

"Silly birds," he said in scornful voice. "You
vowed to keep my secrets. You have broken
your vow. You obeyed my commands and called
the south wind and the sunshine; so I cannot
be too harsh with you. But you cannot keep
my secrets, so I cannot keep you as my messen-
gers. Now and then I may use you as my
servants. Adieu!"

Then the birds flew sadly away as quietly and quickly as ever they could, and set to work building their nests in holes in the trees and holes in the ground and in out-of-the-way places, making such a chattering meantime that neither they, nor anyone else, could hear themselves think.

By this time the Earth King had become nearly discouraged. He did not know what in the world to do. He rested his elbow on his knee and held his great head in his hand and thought and wondered. Then once again he rose and took the great brush and wrote the same big words on the sky, and for very weariness he lay down on a great bank of clouds and soon was sound asleep.

As he slept, the cloud grew bigger and bigger and blacker and blacker, and the thunder came nearer and nearer until, all at once, CRASH—CRASH—the cloud seemed torn to pieces and the King leaped to his feet half-scared to death, even though he was a king. There before him, darting this way and that way, and up and down, and cross-ways, was a swarm of little red-hot creatures that hissed and buzzed and crackled like the Fourth of July.



“Who are you?” he asked in half-fright as he rubbed his eyes, “and what do you want?”

“Messengers, messengers, messengers,” whispered they all at once, “and we have come to serve the King.”

“What are your names?”

“We are the Lightning Spirits; sometimes men call us Electricity—

The swiftest creatures that are known to men,
To carry your messages, a million times ten.”

The King charged them gravely and solemnly, as he had done the winds and the birds before

them, that his messengers must be true and faithful and must keep his secrets. But no matter how great the task nor how heavy the oaths with which he bound them to be faithful, they were eager, all of them, to serve the King. Only he must build roadways for them. They had not wings to fly, and their feet were not accustomed to the highways of the land. They might lose their way.

The King decided to try them. He called his laborers and ordered them to erect tall poles, and from pole to pole to lay slender roadways of wire. Miles and miles of these roadways he built, over the hills and through the valleys. When all was complete, he called the spirits to him and whispered to them his secret messages. Quick as thought they ran over the little roadways, hither and thither, and back again, doing well the King's errands and keeping the King's secrets. They whispered never so much as a word of them. So the Earth King called a great assembly, and before them all appointed the Lightning Spirits to be his trusted messengers forever and a day.

Of course the winds were very jealous when they heard of it, and they determined to get revenge

by stealing the messages from the spirits. They dashed against the wires day after day, trying to break them and get the secrets, but all to no purpose. All they could hear was MUM-MUM-MUM-M-M; and the harder they blew, the louder they heard it.

The birds had all along been sorry that they had given away the great secret, and had been hoping that the King would give them another chance. They were much too gentle to do as the winds did. But they were very curious to find out what the King's messages were; so day after day they went to the wires and sat upon them and snuggled down as close to them as they could get and listened hard, putting now the right ear down and now the left—but all they could ever hear was MUM-MUM-M-M-M-M.

And they seem never to have got over that habit! If you want to find out for yourself the truth of this tale, *you go* some day when the wind is blowing against the wires and the birds are sitting upon them, snuggled close, and put your ear to a telegraph pole and all *you* will hear is MUM-MUM-MUM-M-M-M.

Jay T. Stocking

THE TELEPHONE

As soon as the telegraph had proved to be a success, inventors began trying to send distant messages by the voice instead of by the telegraph. How convenient it would be, they thought, to speak directly to the other person and get a direct answer back!

One of these inventors was Alexander Graham Bell, who for a few years had been a teacher. His pupils were deaf and dumb children whom he taught to read from books and to understand spoken words by reading the speaker's lips.

Bell was so successful in his teaching that his fame soon spread. A rich gentleman, Thomas Sanders, who had heard of Bell's success, came to see him one day. He offered Bell a good sum of money to come and make his home with the Sanders family and teach his little son George, who was deaf and dumb.

It is a lucky thing that Bell decided to accept this offer. Young George Sanders was a bright fellow. He got along well with his new teacher; and when Mr. Sanders found out that Bell was interested in inventing, he gave him a room in the basement for a workshop. Later on when

Bell met with failure after failure in his invention, Mr. Sanders encouraged him and gave him money to keep on with his work.

For months Bell worked trying to send words over wires. At last he succeeded in getting a few faint twangs from the wires. No one but Bell would have thought it possible that these faint sounds were really words; but he was certain he had proved that the sound of the voice could be sent by wire.

"Watson," he said to the man who was helping him, "if we just keep on trying, I'm sure we shall succeed!"

For almost a year they kept on trying; then success came suddenly. Bell had strung a telephone line from the attic to the basement. One day, Watson, who was at the receiver-end in the basement, distinctly heard the voice of his employer who was up in the attic saying: "Watson, come here; I want you." Perhaps you can guess with what delight Watson answered him.

"I hear you, I can hear your words," he shouted happily as he ran to the attic.

Thirty-nine years later when the first telephone line that reached clear across our continent

had just been finished, Bell in New York repeated this same message to Watson in California. Over a circuit 3400 miles long, Bell said, "Watson, come here; I want you."

"This time," Watson laughingly replied, "it will take me a week to come."

In these thirty-nine years, the telephone had become a necessity to the American people. At first they had laughed at the invention and spoken of it as an electrical toy; but they soon found that the invention was more than a toy. There were a thousand and one ways of using it. Was someone sick? The doctor was called by telephone. Was there a fire? It was reported at once over the telephone. News could be collected, market and weather reports given, and business of all kinds carried on by telephone.

So as time went on, the high telephone poles were planted all over the land. You have seen them carrying their glistening copper wires up and down hill, and across mountains, fields, and streams. Each pair of wires is a private road for the spoken words of the two persons whose telephones are connected to it.

Between any two cities there must always be

enough lines to carry the conversation of all the people who might need to talk at the same time. A few pairs of wires are not enough; so the wires are wrapped in thin ribbons of paper and twisted together in pairs. Then many such pairs are put together to form a cable which is protected by an outer covering of lead. One of these cables less than three inches in diameter may carry many hundred pairs of wires; consequently, many hundred messages may be sent at the same time over each of these cables. Some of these cables are strung in the air on tall poles; some are run underground.

There are about seventeen million telephones in our country—far more than in any other country in the world. There is one telephone to every seven persons. People send as many messages by telephone as they send altogether by telegraph, mail, and messenger. How useful the “electrical toy” has turned out to be!



OCEAN CABLES

When Miss Martha Smith decided that she was homesick to see Billy and Sally Smith and their parents, she was in England several thousand miles away. "It has been eighteen months since I saw my brother Will and his family," she said to herself. "Billy and Sally will have grown so much that I may not know them. I am certainly going to take the first boat to America. I must let them know at once that I'm coming."

Now if Billy and Sally had been Pilgrim children living in Plymouth in 1620, it would have taken at least two months for Aunt Martha's welcome message to reach them; news carried by a sailing vessel does not travel fast. Two hundred years later one of the first steamboats could have carried either Aunt Martha or her message across the ocean in a few days less than a month.

But Aunt Martha did not have to send her message by either of these slow ways. She sent it by the telegraph under the sea, or cable. Before she had finished packing her bags, in fact, almost before she had got back to the English hotel where she was staying, Billy and Sally's father miles and miles away had received her cablegram.

He immediately telephoned to Mrs. Smith. "Tell Billy and Sally," he said to her, "that Aunt Martha will arrive in New York next Wednesday. She sent me a cable this morning, saying that she was sailing on the *Majestic*."

"What a happy surprise for us all!" Mrs. Smith replied. "Now I realize what a wonderful thing the ocean cable is."

It has not been very long since ocean cables first came into use. Samuel Morse, the inventor of the telegraph, had tried to telegraph through the water. To keep the electricity from escaping, Morse wound the wire with threads soaked in pitch and covered it with rubber. He laid this telegraph wire across New York harbor and sent a few messages through it; but the anchor of a ship soon tore up the wire and the sailors carried off part of it.

Morse was convinced by this experiment, however, that America could be connected with distant lands by means of a telegraph laid along the bottom of the ocean. As Morse did not have the money to carry out this great undertaking, he turned it over to a young merchant, Cyrus W. Field.

It is a long, long distance across the Atlantic Ocean, you remember, and the water is very deep. To lay more than two thousand miles of telegraph cable along the bottom of the ocean, about two or three miles below the surface of the water, seemed an almost impossible task; but Field was certain that it could be accomplished.

This is the way it was done. Two ships carrying great coils of cable met in midocean where they spliced their cables. Then one vessel started for America, the other one started for Ireland. As the ships sailed away the cable was reeled out while the people on board anxiously watched it disappear beneath the ocean's waves.

"Suppose that your plan does not succeed, that you make the attempt and fail," one man said to Field, "suppose that your cable is lost at the bottom of the ocean, then what will you do?"

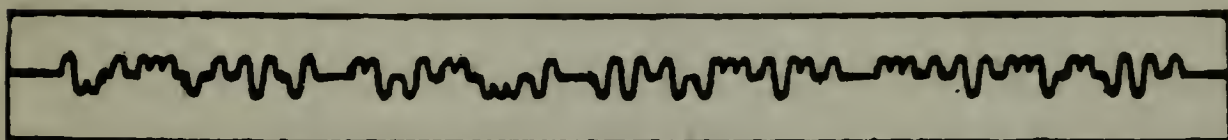
"Charge it to profit and loss," Field quickly replied, "and lay another cable."

Before long Field had a chance to prove these brave words. Twice the cable broke. Another cable that was laid soon afterward worked feebly for only three weeks and then stopped; but Field did not give up. "I never had more confidence

in the success of the Atlantic Telegraph Company," he said, "than I have today."

It is a good thing for the world that Field was not a man who became easily discouraged. After all these failures he found it hard work to get people to furnish money to buy a new cable; but Field kept at it until he had raised enough money. At last in 1866, sixteen years after he first undertook to lay the ocean cable, Field was successful in laying a permanent cable.

Today there are almost two thousand cable lines in the world. Over these lines about six million messages are sent each year. On the newest cables, four messages can be sent each way at the same time. The cable signals are not strong enough to operate a telegraph instrument. The machine that receives the message writes it out on a strip of paper, like this:



The cost of sending a cable to Europe in 1866 was almost a hundred times as much as it is now.

Two or three minutes after an event has taken place in Europe, we can know about it in America.

Thousands of people are saying just what Billy and Sally's mother said, "What a wonderful thing the ocean cable is!"

LANDS AND OCEANS

Lands and oceans all are curled
Tight around the world,
And the earth is like a ball,
Houses, people, trees and all.

Round and round the big ball goes;
When we're up or down—who knows!—
Should I jump up very high
I'd fall, perhaps, into the sky.

Lands and oceans all are curled
Tight around the world,
And the world is like a ball,
Houses, people, trees and all.

—Annette Wynne

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AUNT MARTHA'S STORY

The Smith family and Aunt Martha had just returned from the moving-picture show and were sitting in the Smith's cozy living room. "Aunt Martha," Billy Smith was saying, "do you remember the stories you used to tell Sally and me every night?"

"Yes, indeed, Billy," Aunt Martha answered, "I think I introduced you and Sally to all the enchanted frogs and fairies and sleeping princesses that there ever were."

"We ought to have our story hour again while you're here this time, Aunt Martha," Billy suggested. "Let's begin tonight."

"Oh, yes, please, Aunt Martha," begged Sally.

But Aunt Martha shook her head in a very decided way. "No," she said, "you and Sally

know every one of my old stories better than I know them myself. And I've been too busy traveling over the world and seeing interesting sights and happenings to learn any new stories to tell you."

"Why don't you tell us all about those interesting sights and happenings?" Billy's father suggested. "Real happenings in a real world; I'm sure they would make the best kind of true stories. Tell us about your trip across the ocean."

"Father said you came across on the world's largest ship," said Billy. "Is it so much larger than the boat we take to cross the lake?"

"Yes, Billy," said Aunt Martha smiling. "I wonder whether I can make you realize how big the steamship is. It is more than nine hundred feet in length. An ordinary city block, you know, is not quite seven hundred feet long; so you see what a distance it is from the bow to the stern of the ship. From the keel, or bottom of the boat, to the topmost deck of the boat, it is a hundred and two feet—about the height of an eight-story building."

"The boat is so big," cried Sally, "that it must look like an island moving around in the water."

"A *steel* island then," Aunt Martha agreed. "The whole vessel, of course, is made of steel plate. Shipbuilders have discovered that steel ships are lighter and more durable, too, than wooden ships."

"If you could go inside of this ship, Sally," Aunt Martha continued, "you would think that it was a great floating town. The boat can carry more than four thousand passengers besides the crew of about a thousand persons."

"Five thousand persons in just one ship!" Sally exclaimed. "I don't see where they all sleep and eat."

"The boat, you remember, is several stories high," Aunt Martha explained. "There are between one and two thousand bedrooms, or state-rooms on the different floors, and these rooms are easily reached by electric elevators. Somewhere on board the ship there is a bed for each person that the ship carries. Some of these beds are just ordinary bunks for the crew; others are beds of wood or brass. Think of the bed-making," Aunt Martha said to Sally's mother, "that has to be done every day."

"And I was thinking of the great amount of



food," Mrs. Smith replied, "that must be prepared by someone."

"Yes," said Aunt Martha, "there are sixty cooks to take care of that. One cook does nothing but make soups all day long. Half a dozen other men cook all the vegetables, and several others are kept busy preparing steaks, and chops, and roasts of meat. I have heard that these cooks prepare about two tons of potatoes and over three tons of meat each day. Can you imagine what loads of provisions have to be carried on board before the ship leaves the harbor?"

"How many of the crew does it take," Billy asked, "to shovel the coal to run the boilers? A great many, I should think."

"Not one man, Billy," Aunt Martha replied laughingly. "You see many of the owners of the big ocean steamships are finding that oil is a better and more convenient fuel than coal. The ship I came on uses oil."

"I see, Billy," Aunt Martha continued, "that you're wondering what the rest of the crew do. Of course there are the engineers and the sailors and the deck crew, the waiters, the stewards, the

ship's orchestra, and wireless operators and—well, it's just too much of a task to name them all.

“A modern ship has all sorts of luxuries for its passengers. There is a swimming tank filled with warm salt water, and this water is just as green as the ocean outside. There is a gymnasium where the passengers can exercise with punching bags, mechanical horses, and various other things. The ship's library, the daily paper which is printed on board, and the concerts furnish other entertainment. So you can see that modern ocean travel isn't a wearisome thing.

“Anyway,” laughed Aunt Martha, “the ship is so speedy that one doesn't have much time to get weary before getting back on land again. Let's see, how long did it take the *Mayflower* to bring the Pilgrims across the Atlantic?”

“Sixty-five days,” piped up Sally, remembering the picture show they had just seen.

“Well,” said Aunt Martha, “that is just sixty days longer than it took us to cross the ocean.”

“Aunt Martha,” said Billy thoughtfully as she finished. “I believe the Pilgrim children would think that what you've been telling us is really a fairy tale.”

DOGS THAT WORK

Billy's dog, Wag, thought that it was great sport to play ball with his master. It had taken Billy a long time to teach Wag to fetch the ball back to him. But at last when Wag had learned the game, no ball could be thrown too fast or too far for him to seize it almost before it reached the ground.

One evening Billy and Wag had just finished a game of ball when Aunt Martha, who had been watching them from the porch, said, "How does Wag earn his living, Billy?"

"What a funny question, Aunt Martha!" Billy said in surprise. "Dogs don't work for a living."

"Oh, yes, they do," Aunt Martha answered firmly, "I know of many dogs that have regular occupations. They earn their living just as truly as any man or woman who works."

Billy knew that this was the beginning of one of Aunt Martha's stories; so he and Wag sat down comfortably beside Aunt Martha's chair.

"Near a dangerous pass in the mountains in Switzerland," Aunt Martha began, "some monks have built an inn for travelers and strangers who

come that way. Sometimes these travelers are lost in the snow and the ice. They would soon die from cold and hunger if they were not rescued by the monks' dogs.

“These are large dogs, called Saint Bernards which the monks have trained to go out each day to rescue anyone who is lost in the snowy mountains. The Saint Bernards have a keen sense of smell which helps them to detect a body buried under several feet of snow. Around their necks they wear a flask of brandy or soup to revive the half-frozen traveler. As soon as a Saint Bernard finds a lost traveler he begins calling for help with loud and continuous barking. It is said that one Saint Bernard called ‘Old Barry’ has rescued forty-two men in the Alps mountains.”



"Forty-two men!" Billy exclaimed in admiration. "Well, I think Old Barry did earn his living."

"Many dogs are used in the army," Aunt Martha continued. "They have been taught to search the battlefield for the wounded and the missing. Their keen noses lead them on even the darkest night to the injured men. By following the tinkle of bells on the dog's neck, the stretcher bearers know where to go without carrying a light, which would disclose them to the enemy. When the dog finds a wounded man, he whines softly.

"Did you know that in many places people use dogs just as we use horses?" Aunt Martha asked.



"In the snowy northland, the wolflike Eskimo dog is used almost entirely to carry men and goods from place to place.

"The white men call these dogs 'huskies.' Usually there are seven to nine huskies to each heavily loaded sleigh. They are often harnessed in single file with the most intelligent dog in the lead. The driver, cracking a stout hide whip above the heads of the dogs, often covers fifty or sixty miles a day with his team."

"Why, that's as far as a horse could travel in a day," Billy observed. "I think those dogs earn their living, too, Aunt Martha."

"You would naturally think that they deserved a square meal every day," Aunt Martha said, "but their owners feed them only every second day when food is plentiful, and about every five days when food is scarce. The huskies, however, thrive on this treatment.

"One of the most interesting sights I saw in Holland," Aunt Martha continued, "was the little shops and vegetable markets on wheels. Here and there on city corners I saw dog-drawn carts filled with wares to be sold to the passer-by. Oftentimes a dog or two pulled the milk cart of some



Dutch woman who was going from house to house delivering milk. Usually these dogs are well treated, having a piece of carpet to lie down on, and a drinking bowl of their own. Their owners know that they could not carry on business without them."

"Lazy old Wag!" said Billy, patting his dog lovingly, "aren't you ashamed of yourself when you hear about those busy dogs? You're not even a good watchdog for you're far too friendly with everyone."

Billy was silent for a moment as he played with Wag. "I've decided, Aunt Martha," he said at last with a satisfied smile, "that Wag makes *his* living just by being my pal."

THE LITTLE CAMEL DRIVER

PART I

Hamid, the little camel driver was in great dismay. Within an hour the caravan with its loads of rugs, spices, tea, dates, and silks was to start on its long trip across the trackless desert. And Hamid had forgotten the blue beads for his camel!

Now you may think that a few strings of beads around the neck and the tail of a camel would not make any great difference. But Hamid and the other camel drivers believed that the spirit, Evil-Eye, had to be warded off in some way. The caravan was starting across a barren desert, where many dangers threatened. Perhaps the camels would lose their way in the shifting sand. Perhaps a dreaded sand storm would arise; or perhaps the robbers who sometimes lay in wait for such caravans behind the high sand dunes might attack this one and bear away the great bales and bags of treasures it carried. Hamid and the other camel drivers believed that all these dangers were the work of Evil-Eye. Yes, he must be warded off in some way; and the best way—so people had said for ages and ages—was to twine

the magic beads about the awkward ugly camels that carried the precious loads. Now you understand why Hamid, the fourteen-year-old camel driver was in dismay.

Some of the other drivers had already noticed that although Hamid's camel bore a heavy burden of goods it did not wear its usual festoons of beads.

"It is almost time for the caravan to depart," one of the drivers said to Hamid. "See, the last half-hundred camels are now kneeling to receive their loads. Haste, Hamid, to protect your camel against Evil-Eye. I fear that he has already noticed your carelessness."

"The beads are far from here in my mother's home," said Hamid. "My camel is already loaded with dates and spices. See how easily he bears his load—eight hundred pounds if it is an ounce. I cannot ride him to my mother's home for it lies at the other edge of the city. And surely one cannot trudge all that distance and return before the caravan moves. Perhaps Evil-Eye will not notice that out of the caravan of a thousand animals, one camel is not protected by the magic beads."

"You do not know sharp old Evil-Eye," one driver replied.

"Hamid is a thoughtless youth," said another. "He will bring disaster on the whole caravan."

"Let us leave him and his camel behind," suggested a driver who was much older than Hamid. "In that way we can disappoint Evil-Eye and protect ourselves."

"Yes, yes!" shouted a dozen drivers.

"I will go after the beads," Hamid cried excitedly, for he could not bear to lose his place in the caravan. He knew how ashamed of him his mother would be. He knew, too, how she needed the money he received as a camel driver; so he cried, "I will run every step of the way. I ask only that one of you will lead my camel to the spring when his turn comes and let him fill his great stomach with water." And off Hamid ran down the narrow crooked streets that led to his mother's home. The caravan had started to file through the city gates before Hamid returned breathless. He was waving the bright blue beads at the other drivers. Quickly he found his camel and began twining the beads around its neck and across its forehead; then he made a startling

discovery. In his excitement and haste he had lost the blue beads which should have decorated his camel's tail. It was too late to help matters. Either he must lose his place as a camel driver or go on without these beads. So Hamid started off on the long caravan trip, hoping that neither the other drivers nor Evil-Eye would discover his carelessness.

PART II

For four days, the caravan had been traveling across the dry sandy desert. As the camels were heavily loaded, they were driven only about thirty miles a day. Hamid's caravan had met other caravans that were traveling three times as fast, but these were passenger caravans carrying merchants and travelers who rocked back and forth as they sat on the humped backs of the swift camels. They called out a friendly greeting as they passed the caravan loaded with rugs, spices, tea, dates, and silks; and then nothing could be heard but the splashy beat of the camels' broad feet in the sand. Hamid was glad that he did not have to walk in the burning yellow sand; he would need thick pads on his feet like those the



camels had. And as he took a drink from the leather water bottle hanging from the saddle he was glad, too, that he did not have to go for four or five days without water as the camels did. Perhaps tomorrow they would reach an oasis with its grove of palm trees and its spring of cool, sparkling water. Not until then could the camels

have their next drink. What quantities of the water they would store up in their stomachs!

The whole trip had been so peaceful that Hamid had almost forgotten about Evil-Eye and the lack of the beads. Luckily the other drivers, who had seen Hamid return with the beads, paid no further attention to his shaggy camel; and so the caravan went on and on across the desert.

Suddenly Hamid noticed that there was a great deal of confusion at the head of the caravan. The drivers were dismounting from the camels. At almost the same instant, Hamid felt a strong wind and the sting of fine yellow sand upon his cheek. One of the dreaded sand storms was upon them!

The camels did not need to be told what to do. Each of them lay down, stretched its long neck on the ground, and closed its eyes and nostrils. Hastily the drivers pitched a tent to protect themselves. But even inside of the tent the fine sand in the air almost blinded and choked them. They could hear the groans of the camels outside.

For two hours the storm raged. "It is the work of Evil-Eye," Hamid kept saying to himself, "and it is all because I was careless. It will serve me

right," he admitted, "if I find that my camel has been choked by Evil-Eye and the stinging sand."

When the worst of the storm was over, Hamid was one of the first drivers to go outside the tent. Hastily he made his way to the place where he had left his camel. There it stood patiently shaking off the sand that had covered it. Hamid shouted happily to it when he saw that it was uninjured. And as the caravan started on its way again, Hamid thankfully stroked his camel and said, "I should never have forgiven myself if old Evil-Eye had got you! What if I had lost *all* the magic beads!

THE FOREIGN CHILDREN NEVER KNOW

The foreign children never know
How very strange they are; and so
They go all unconcerned about,
And think 'tis we are queer, no doubt.
They walk around all foreign places
And think 'tis we have curious faces.

—Annette Wynne

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LO-SEN, THE RICKSHAW BOY

Lo-Sen stood between the shafts of his rickshaw crying lustily, "Rick-shaw!" "Rick-shaw!" He hoped that some of the passengers coming down the gangplank from the big boat would let him carry them swiftly to their hotel in his rickshaw.

Not that the queer two-wheeled Japanese carriage was really Lo-Sen's. It belonged to a rich man who rented it to Lo-Sen for so many silver pieces a month. Indeed, Lo-Sen found that he had little money left for himself after he had paid the rich man for the use of the rickshaw. But little by little, Lo-Sen was able to save a few yens and sens. Some day he would have his own rickshaw. That day, Lo-Sen thought, would be the happiest day of his life; and so he called louder than ever to the travelers coming from the boat, "Rick-shaw!" "Rick-shaw!"

One of the passengers was an American business man who was expecting to go on by rail to

Tokyo, the capital city of Japan, eighteen miles away. He looked with interest at the alert rickshaw boy for he was thinking to himself, "This rickshaw boy looks like a sturdy human pony. Why should I wait three hours for a train when I might just as well be hastening on my way?"

So he beckoned to Lo-Sen who came running toward him, and soon the arrangements were made. "Sure, run all way!" Lo-Sen answered the traveler in his broken English as he helped him into the rickshaw and raised the top of oiled paper to protect his passenger from the sun. Then Lo-Sen stepped between the shafts, and taking one shaft in each hand, trotted off.

The streets of the city were so narrow and full of people that Lo-Sen had to keep shouting *hai-hai* to the crowd to clear a way for him and his rickshaw. At last they left behind the flimsy bamboo houses of the city and traveled over a country road shaded by tall pine trees. Here they met many other rickshaws. They also met many Japanese coolies who were pushing handcarts piled with vegetables or plodding along with heavy loads on their backs.

Every little while they passed through small

villages with green rice fields lying behind them. The fields were full of laborers—men, young children, and women, many of whom had babies fastened on their backs. No one could be idle a minute until the rice was cut and the sheaves were hung on fences to dry. Sometimes these fences were hedges of mulberry trees. The Japanese use the leaves of these mulberry trees as food for the silkworms that they raise.

At another place along the road, they passed a large turtle farm, which raises more than fifty thousand turtles for the market each year. There were separate ponds for full-grown turtles, some for half-grown turtles, and some for little ones just hatched; for if all the turtles were kept together, the old ones would eat the little ones.

Finally, as they approached Tokyo, the air was filled with the odor of tea. The merchants of Tokyo were firing the tea leaves that had been brought in from villages nearby, and were getting the tea ready to send across the ocean. Lo-Sen sniffed the odor of the tea and thought how good the hot tea would taste after his long run.

And yet Lo-Sen did not seem to be tired from his efforts. He was skilfully finding his way down

the narrow city streets, again he was vigorously calling *hai-hai* to the crowds that pushed around the umbrella-menders, rice-pounders, lantern-makers, and shoemakers who were at work in their tiny open shops.

When at last they reached their destination, Lo-Sen dropped the shafts so suddenly that he nearly spilled his passenger out of the rickshaw. The American reached into his pocket for a coin, which he carelessly threw to the rickshaw boy. Lo-Sen deftly caught the coin and started to make his usual bow of thanks. Just then, however, he noticed that it was a gold coin, and in his gratitude he threw himself flat on the ground and called out loud thanks to the American, who by this time was striding up the street, and was paying but little attention to Lo-Sen's thanks.

It was several days before the American learned why Lo-Sen had seemed so grateful. Then he realized that by mistake he had thrown a gold good-luck piece to Lo-Sen for his pay. But the American's misfortune had been Lo-Sen's good fortune, for the gold piece had paid for the rickshaw that Lo-Sen had been eager to own. The happiest day of his life had come.

HOW THE SILKWORM CAME TO JAPAN

PART I

Long, long ago, there lived in far-away India, a beautiful little princess called Maya. Her step-sister, Bela, was as homely as Maya was beautiful. And to make matters still worse, Bela was just as cross and discontented as Maya was good-natured and lovable. So the stepmother hated Maya, and whenever the father was away from home, treated her with the greatest cruelty. Sometimes she whipped Maya; sometimes she scolded her and shut her up without food.

The cruel stepmother was always finding new reasons for scolding Maya. Finally one day, one of the stepsister's suitors caught sight of the beautiful Maya and straightway lost all interest in the homely Bela. You can imagine how this angered the stepmother. She flew into a rage and began to shout loudly at Maya.

"Horrible scheming vixen!" she screamed. "You think that you will take my daughter's lover from her! Take this instead," she said, striking Maya "and take that," striking her another blow.

Unhappy little Maya ran from the house into

the garden. But the homely Bela who was sitting there among the flowers began to scold her just as madly as the stepmother had done; so Maya started back to the house.

By this time, the cruel stepmother had decided that she would not be bothered any longer by this too-beautiful stepdaughter; so she called one of her trusted servants whom she ordered to seize Maya and to tie her up in the hollow trunk of a mulberry tree.

Although Maya cried bitterly and promised



never again to show her face when Bela's suitors were near, the stepmother was relentless. She would be rid of this unloved stepdaughter at once and forever. When her trusted servant had securely fastened Maya into the hollow mulberry tree she said to him, "Now carry the trunk of the mulberry tree down and throw it into the ocean."

And the cruel stepmother followed behind the servant to see that he did exactly as he had been ordered. When at last she saw the trunk of the mulberry tree containing the beautiful princess tossing along the waves and constantly drifting farther and farther from the shore, she went back home satisfied. She and her homely daughter could now live in peace as soon as they had made up a story to account for Maya's disappearance.

PART II

In the meantime, frightened little Maya lay helpless and sobbing in her mulberry boat. At any minute she expected one of the great ocean waves to dash the frail, hollow tree trunk to pieces or to drown her with its heavy spray.

The poor little princess knew of only one possible way of escape. On her finger, Maya wore a ring which years ago her fairy godmother had placed there, saying:

“Wear this ring both night and day,
Never take it off in play;
For when you cast it from your hand
It tells that you in danger are.
And though I needs must travel far,
I’ll speed to you o’er sea or land.”

Maya had thought of this precious ring when the servant had seized her; but so swiftly and so securely had she been fastened into the mulberry tree trunk that she could not carry out her fairy godmother’s bidding.

Now Maya was wondering whether in some way she could squirm out of the tight bands that bound her. She began struggling to free herself. She tried to gnaw the bands. She strained in this direction and in that direction, but she could not free herself. At last in her attempts to get her hands out of the cords, she wrenched the ring from her finger. What became of the ring Maya could not see.

What she did see in a few moments was a

fleecy cloud hovering over her mulberry boat. Little by little, the soft cloud was descending. Maya thought that unless the little boat traveled faster, she would soon have a cloud for a coverlet; and that is just what happened!

Suddenly Maya felt the tight bands around her loosen. She felt the soft edges of the cloud touch her chin and tuck themselves about her feet. How warm and comfortable she was! How sleepy she was! And half-asleep and half-awake, Maya heard her godmother's voice softly singing,

“Sleep, dear child; forget your woes.

I will guard while you repose.

I'll tame the winds and guide your boat,

Send you sweet dreams and visions gay.

Soon there will dawn a happier day;

Gently, peacefully onward float!”

And Maya slumbered soundly as her little boat drifted on and on across the ocean.

PART III

How long she traveled in her mulberry boat, Maya did not know, for she did not awaken until the hollow tree trunk had been swept far up on the shore of a strange land. Then the little

maiden stepped from the boat and looked at the strange people who crowded about her.

“We welcome you, fair maiden!” they were saying. “We will be your friends. We will take you to our king and queen.”

Maya could not understand their queer language; but when they smiled at her, she smiled back and gladly went with them. They took her to the palace, where the Japanese king and queen fell in love with beautiful Maya at first sight. So there she lived with them, loved and admired by everyone.



Should you like to know what became of Maya's little mulberry boat? It lay a long time on the seashore, where the sands drifted over it, and the rich earth from the mountains washed down upon it, and there it finally took root. As the years went by, it became a great tree. It grew blossoms and then berries; and from its seeds many groves and orchards of mulberry trees sprang up all over Japan.

Maya liked to walk in one of these mulberry groves near the palace. Though she was growing old by this time, she was still quite beautiful. As they saw her walking in her favorite grove, the Japanese people often exclaimed, "There is our beautiful mulberry princess! May she live forever!"

But Maya knew that she would not live forever; she felt that soon she would die and leave the people who had treated her so kindly. She wished that she could bestow upon them some gift that would make them always remember her coming.

"O my godmother!" she cried one day as she sat beneath one of the mulberry trees. "Will you not help me once more? Will you not grant me

some great gift to leave to the Japanese people when I depart from them?"

She had scarcely said these words when she heard a low sweet voice within the trunk of the tree:

"Lovely Maya, sweet and true,
Your kind wish I grant to you!
A priceless gift you shall bestow
Upon these friends who love you well,
The Japanese your deed will tell,
And through the years your fame
will grow."

And as the low sweet voice went on, Maya felt that something strange had happened to her. Her fairy godmother had turned her into a silkworm. Then the fairy taught her to eat the leaves of the mulberry tree, saying:

"From these leaves a cocoon warm
You will spin upon the tree;
From the cocoons men will form
Silken cloth of beauty rare;
This shall be the gift to men
Left by thoughtful Maya fair!"

And this is the way—so everyone says—that the first silkworm came to Japan.

THE STORY OF SILK

Is it not strange that tiny worms can give us the silk from which our most beautiful clothing is made? No one knows who discovered that the little silkworm could be used to clothe people. For almost five thousand years, however, men have kept millions and billions of these silkworms working away, spinning the silk threads that are used in making all kinds of beautiful goods.

At first the silkworm industry was kept a secret. The kings warned the people not to teach the industry to strangers. They ordered the people not to let the silkworm eggs go out of the country. But in spite of these warnings the silkworm industry gradually spread. A princess, it is said, hid some of the eggs in her headdress and carried them out of the country. These eggs hatched into worms, which in time became moths that laid hundreds of eggs; so after years and years many different countries had learned all about silkworms and silk weaving.

The silk moth lays the eggs in the early summer and dies soon after laying them. In its wild state, the moth lays its eggs on the mulberry tree; but under cultivation it lays them on sheets

of paper or muslin. These sheets are then hung up in a cool place until the following spring. At that time the mulberry leaves are young and tender and just right for silkworm food; so it is best to have the eggs hatch in the spring.

What a curious sight these sheets of eggs are! Each egg is about the size of the head of a pin. Half a million of these eggs would weigh only a pound. Often they are sold at so much an ounce.

When hatching time comes, the sheets of eggs are kept in a warm place for eight or ten days. Tiny hairlike worms about a quarter of an inch long emerge from the eggs. They are hungry and at once begin eating mulberry leaves, which have been chopped very fine. They have to be fed five or six times a day and they consume about their own weight of food daily.

For eight or ten days these little gluttons eat steadily. Then they stop eating and take a long sleep. When they wake, they crawl from their old skins and come out with new ones. Again they eat like gluttons for several days.

At last when they have had four long sleeps, they are ready to spin their cocoons. By this time they have grown from hairlike worms to

caterpillars three inches long and as big around as one's finger. These caterpillars crawl up on some straw or a rack, which has been placed on the paper, and begin to spin little cocoons.

To and fro the caterpillar sways its head as it spins from its mouth a sticky fluid, which hardens into a silk thread when it touches the air. For two or three days the caterpillar continues to wrap this thread around and around its body. At last its body is completely hidden. Often the thread is a mile or so long before the little house in which the caterpillar is to be transformed into a moth is finished. This little house looks something like a big peanut covered with glossy light-yellow fuzz.

If the silk-workers left the cocoons alone for two or three weeks, moths would emerge from them, and the silk-workers would find that each cocoon had become badly broken and the threads spoiled. So they allow only enough worms to become moths to furnish eggs for the next crop. The other cocoons are baked in an oven just long enough to kill the worms inside. The workers can then use the cocoons whenever they get ready for them.

The men and the women silk-workers take these cocoons, soak them in hot water, and carefully unwind the thread from them. So fine is this thread that the threads from six or eight cocoons have to be twisted together to make silk strong enough for use.

Nearly every member of the family has some work to do in unwinding or reeling the silk. One person sorts the cocoons, and brushes off the good cocoons. Another person, perhaps just a child, throws the cocoons a few at a time into a pan of hot water and stirs them with a bamboo brush until they are softened. Then the mother unwinds the cocoon and skilfully changes the yellow balls into great skeins or hanks of shining silk, ready to be woven into cloth either at home or somewhere across the seas.

FOREIGN CHILDREN

Little Indian, Sioux or Crow,

Little Frosty Eskimo,

Little Turk or Japanee,

O! don't you wish that you were me?

—*Robert Louis Stevenson*

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RAISING SHEEP FOR WOOL

When Christopher Columbus, who discovered this great America of ours, made his second voyage across the Atlantic Ocean, he brought a few sheep to this new continent. Other explorers, too, brought some of these useful animals to this country. Families coming to settle in America usually brought two or three sheep with them, for they found that they could use the sheep in many ways; they could use its wool for clothing, its flesh for food, and its hide for leather. These sheep were the beginning of the great flocks of sheep that are now found in many parts of our country.

At first each pioneer family often raised the sheep, sheared the wool from them, spun the wool into thread, and wove the thread into cloth to use in making clothing for the members of the family. But the invention of machinery to spin the wool and weave the cloth has changed the farmer's work. He now raises the sheep and sells its fleece to wool dealers, who in turn sell it to the great woolen mills. When the farmer and his family need woolen cloth or woolen clothing they buy it at some store.

Some of these farmers own just a few sheep; others have great flocks containing thousands of sheep. These sheep are of many kinds—long-wooled sheep, short-wooled sheep, coarse, and fine-wooled sheep. Altogether in the United States there are enough sheep to produce about a tenth of all the wool produced in the world; so you see that other countries, too, produce much wool.

The sheep can be sheared either by using large sheep shears or by using a clipper, which is run by steam or electricity. This clipping machine is something like a barber's clippers; it cuts the wool closely and smoothly from the sheep's body. Good sheep-shearers can shear from a hundred to two hundred sheep a day depending on whether they work with the big scissors or with the clipping machine. They know just how to handle the animal. Within a few minutes after they begin cutting off the soft thick greasy wool, the sheep scampers away in its new light coat. On the floor or the ground by the shearer lies its dirty, gray fleece, which will some day be manufactured into warm woolen cloth.

These fleeces, each weighing from six to ten pounds, are rolled up just as they come from the

sheep and are sold to wool buyers. These buyers sort the wool, separating it into different grades. The finest and most even part of the fleece is on the shoulders and the back of the sheep. The poorest wool grows in thick uneven tufts on the hind legs of the sheep; it can be used only in the coarsest yarns. Each grade of wool is baled ready for the market.

After the wool is received at the factory, it goes through many processes before it comes out as cloth. It must be washed and all burrs and bits of grass must be taken out of it. The fibers must be straightened out or carded and spun into thread, which must be wound on spools. Then the thread must be woven into cloth, which still has to be dyed and pressed. In spite of all the modern machinery we have to help us in its making, it is really surprising how much work it still takes to make the change from the wool to a woolen garment.

THE BOY AND THE SHEEP

“Lazy sheep pray tell me why
In the pleasant fields you lie,
Eating grass and daisies white

From the morning till the night;
Everything can something do
But what kind of use are you?"

"Nay, my little master, nay,
Do not serve me so I pray!
Don't you see the wool that grows
On my back to make your clothes?
Cold, ah, very cold you'd be
If you had not wool from me.

"True, it seems a pleasant thing
Nipping daisies in the spring;
But what chilly nights I pass
On the cold and dewy grass,
Or pick my scant dinner where
All the ground is cold and bare!

"Then the farmer comes at last,
When the merry spring is past,
Cuts my woolly fleece away,
For your coat in wintry day.
Little master, this is why
In the pleasant fields I lie."

—*Ann Taylor*

THE STORY OF THE SOUTH'S COTTON

Once upon a time it seemed as if raising silkworms and making silk might become one of the chief industries in our own country. Great fortunes could be made, people said, out of silkworms; so they imported the eggs from China and Japan and paid large sums for mulberry trees to furnish food for the silkworms. But their undertaking was not successful. In some places the climate was not right for the worms. A terrible blight attacked the mulberry trees. And as China and Japan had people who would work for only a few cents a day, they could sell their silk at a much lower price than Americans could hope to produce it. So before long the people of this country became convinced that they could make more money from other crops.

In the South where the summers are warm and long, and when the rainfall is abundant, cotton raising has become the chief industry. At first, only small patches of cotton were planted here and there. But the industry has grown gradually until today our country is producing more than three-fourths of all the cotton used by man.

The work of raising cotton begins in the early

spring, when the cotton-planter plows his fields in order to make the soil fine and soft. Then he marks off the ground in rows three to four feet apart ready for the little black seeds to be dropped into each furrow. On the larger plantations an improved machine does this work, but in many places men and women and children walk along the furrows planting the seeds.

Before long the seeds sprout and push their way through the soil. Then the cotton-workers pass down the rows thinning out the plants until they are about a foot apart. Soon each of the plants sends out green leaves which look very much like those of the maple tree.

When the plant is perhaps a foot high, it bursts into blossom. The blossoms are white the first day, but they are soon turned to pink by the sun's warm rays. Within three or four days the petals fall to the ground, leaving behind on the stalk a tiny green pod or boll. Inside of these bolls the white fluffy cotton begins to grow.

At the end of six or eight weeks, these bolls have grown to about the size of an egg, and they then burst open, disclosing the white fleece within each boll. It is then time to begin picking the



cotton. Picking is still done by hand, as no machine has ever been invented that will pick cotton successfully. The work lasts many weeks, for all the cotton does not ripen at the same time; so the pickers have to go over each field several times. They fill the large bags which hang about their necks or waists and later load

the cotton on huge wagons to be taken to the mill to be cleaned.

For many years all this cleaning had to be done by hand. The cotton lint that the pickers drop into their baskets is full of many little hard seeds, which cling tightly to its fibers. These seeds must all be torn from the white fiber before the fiber can be spun into thread. A person working hard all day can clean only about a pound of cotton; so you can imagine how happy the cotton-growers were when a machine was at last invented which could do the work of hundreds of men. This machine that removes the seeds from cotton is called a cotton gin.

When all the seeds and the dirt have been removed from the cotton, it is pressed into bales, each weighing about five hundred pounds. The bales are wrapped in bagging and bound with iron bands. The bales are then ready to be sent to the mills, where the cotton will be spun into thread and woven into cloth. And in a very short time, men and women and children all over the world will be wearing clothing made from this very cotton, which not long before looked like snowballs on the green cotton plants.

But not all cotton is used to make cloth. The wonders of modern chemistry turn cotton into more widely different substances and shapes than the magicians ever dreamed of. High explosives for guns, photographic film, artificial silk and leather, lacquers, and the thousands of articles made from celluloid are only a few of them.

But what becomes of the seeds which have been torn from the cotton fibers? The cotton-growers used to save enough seeds to plant the next year's crop and then burn or throw away the rest of them. It was sometimes hard to get rid of them. No one wanted them; and there were always great quantities of them, too, for every pound of lint yields two or three pounds of seeds. But at last men learned many valuable uses for this former waste product.

In the cotton districts there are hundreds of mills where these cottonseeds are stripped of their hulls and then pressed between rollers until all the oil which they contain is squeezed out of them. This oil is used in dozens of ways. In her cooking your mother probably uses some cottonseed oil instead of lard or olive oil. Some of the soap you use is made with cottonseed oil. The small

fish called sardines are canned in this oil. Butterine, salad dressings, oil for paints and axle grease are other things made from this once waste product.

The mass of crushed seeds from which the oil has been squeezed is also used. It can be made into cottonseed meal, which is an excellent food for cattle and sheep; or the hulls can be used as a fertilizer. The cottonseeds alone are worth many millions of dollars a year. How wonderful it is that we no longer have to waste this large part of the cotton crop!

There is another waste, however, which the planters have not been able to stop. A small gray beetle, called the boll-weevil, seriously damages the cotton crop. This weevil came into our country from Mexico and little by little made its way through the cotton districts. It bores into the green boll and lays an egg there. When the egg hatches, the new little weevil ruins the fibers in the boll. In this way, the cotton planters lose millions of dollars worth of cotton each year. Our government is trying to help them fight the boll-weevil. It wants to keep cotton as the "King of the South."

A COTTON PLANTATION

PART I

Philip Piedmont was very busy sharpening his jackknife in a little workshop near the stable, when he heard his father call, "Philip! Philip! don't you want to go out to the plantation with me this morning?" Philip ran out into the driveway and saw his father already seated in the light wagon, holding the reins over a big bay horse. "Yes, indeed, Father," he replied; "I always want to go out to the plantation, especially on Saturdays. Isn't Helen going?" He looked toward the house for his younger sister, who was always ready for a drive with her father and brother.

"Waiting for Helen!" called Mr. Piedmont; and at the same moment, Helen appeared at the piazza door, tying on her big sun hat. Her mother was beside her and cautioned the little girl not to play in the sun too long; for the April sun is hot in the South.

"Aunt Cassie will look after Helen, and

Adapted and abridged from *The Story of Cotton*, by Alice Turner Curtis.
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we shall be home by sunset," Mr. Piedmont assured his wife, and the little party started merrily off for the cotton plantation.

It was the very first of April, a clear, sunny day; and as they drove by the big cotton mills on the outskirts of the town, and heard the whirr of the machinery, Phil announced, "I am going to have a cotton mill of my own some day."

"Well, I am going to live on Father's plantation when I grow up," declared Helen; "I think it is much nicer to watch cotton grow than to see it made into thread and cloth."

"Well, I know there's a lot of fun on a plantation; there's 'possums to be caught for one thing," said Phil thoughtfully.

"Yes, and the mocking-birds," said Helen. "They sing so much sweeter out there; and there are so many of them. Why don't we live at the plantation, Father?"

"Because it is much better for you and Phil to go to school than to stay on the plantation all the time," answered her father smilingly.

It was not long before they came in sight of the plantation buildings—a square white house with verandas, and a short way off a long row of

sheds where cotton was stored, ginned, baled, and made ready for market.

"There's Aunt Cassie now!" Helen exclaimed as they turned into the driveway. A large Negro woman in a cotton dress and a white turban on her head, stood smiling on the steps. She made a low curtsy as her visitors stepped from the wagon.

"I am glad to see you, Honey," she said as Helen called out, "I can stay all day!"

Mr. Piedmont and Philip left the little girl on the porch and drove down into the field where they saw the overseer, Mr. Smith, directing the laborers.

"Good morning, sir," said Mr. Smith, coming up to the wagon. "You see we are getting a good start. I have thirty acres all ready for seed besides this field we are planting.

"With this weather the seed ought to be up in ten days from now. We ought to begin hoeing by the first of May. The first blossoms will be out early in June and by that time the plants ought to be fifteen inches high. I think we shall be able to begin picking in August this year. Everything looks well for a good crop."

“Don’t be too hopeful, Smith,” responded Mr. Piedmont laughingly; “I’ll drive back to the stable now and leave the horse. I want to look over the cotton gin a little and see what repairs are needed.”

While Philip and his Father had been talking about the cotton gin, Helen had followed Aunt Cassie to the kitchen, and was sitting in the open doorway enjoying a drink of cool milk and listening to the good-natured Negro woman’s talk.



"I declare it seems good to have white children around the place," she said, breaking some eggs into a china bowl and beginning to beat them vigorously with a long-handled spoon. "I'm just going to beat you up a little cake for luncheon, Missy," she continued smilingly. "Land sakes, seems like old times to see a little girl sitting in my kitchen door. Your mother used to sit there her very own self, Missy, when she wasn't any bigger than you are."

"What did my mother do when she was about as big as I am?" questioned Helen eagerly.

Aunt Cassie chuckled. "She used to do all sorts of things," she replied, "but she liked most to sit right in that kitchen door and hear me tell about the days when there were nearly a hundred men working these cotton fields; and when your grandma had a dozen of us tending to the house. Those were great days, Missy!"

Helen finished her milk and set the glass carefully on the table. "I think I'll go out and play under the pine trees, Aunt Cassie," she said; "you can call me when the cake is ready."

"I sure will, Missy; but stay where you'll hear me when I do call."

"Yes, indeed. Why, you can see me, Aunt Cassie, if you step to the door."

Aunt Cassie nodded, and Helen went across the driveway into the shade of a grove of tall pines, and seated herself on a thick bed of pine needles. Just above her she could hear the musical calls of the birds, and on the further side of the driveway a little peach orchard was in full bloom.

She picked up the big cones of the pine and began setting them about in squares. "This is a house, and this is a garden," she said aloud, and just then she heard her name called from the direction of the stable. "Helen! Helen!"

"That's Phil!" she exclaimed; and forgetting all about the house and the garden, she ran down the driveway.

"Come on, Helen," called her brother; "Tom has a tame 'possum in a box down at his cabin, and he's going to let us see it."

Tom was a Negro boy several years older than Philip, and had always lived on the plantation.

Philip and Helen listened eagerly to Tom's story of the capture of the opossum and soon

reached a neat little cabin back of the cotton sheds, where Tom's parents lived. At the approach of the children the little creature curled itself up in the farther corner of the box, and looked so frightened and unhappy that Helen did not take much pleasure in looking at it.

"I think you ought to let it out, Tom," she said; but Tom shook his head.

As Tom was not to be persuaded, Helen left her brother at the cabin and walked back toward the house. As she passed the cotton sheds, her father called to her. "Come here, Helen," he said; "here's something you will like to see."

"Oh, Father! May I have one?" exclaimed Helen, for her father was holding two little fat black spaniel puppies in his arms.

"Why, yes, you may have them both," answered Mr. Piedmont; "but they will have to live at the plantation; and when you come out here, you can have them to play with."

"I do wish we lived here, Father," said Helen, as she took one of the puppies in her arms and smoothed its shining head. "I would rather live here than anywhere else in the world."

"Well, I think we must persuade your mother

to come out here and stay through the summer, until after the cotton is gathered."

PART II

It was early June, however, when the Piedmonts moved out to the plantation; and then came busy days for Mr. Piedmont and for Philip too, for the boy was always in the fields, and was always finding some new thing to interest him.

One day Philip said, "Helen, you ought to name those puppies."



“Why, Phil Piedmont! They were named last April, the very day Mr. Smith gave them to Father. Don’t you remember? Mr. Smith named them ‘Tip’ and ‘Top’ because he said they were tiptop dogs,” said Helen.

“I remember,” announced Tom; but Philip declared that he had never heard them called anything but puppies.

“Which is Tip?” he questioned.

“The one with the white nose,” explained Helen.

One afternoon Philip said, “I shall be glad when the cotton is ready to gather. I am going to try to make a little cotton gin over at the brook and run it by water-power.”

“That’s quite an idea, Philip,” said Mr. Piedmont; “you shall gather the first cotton that ripens for your little cotton gin.

Toward the end of July, Philip was constantly looking for the appearance of the bursting of the cotton bolls. He had completed his small cotton gin and his new water-wheel at the brook and was very anxious to see if it would really clear the lint from the cottonseed.

It was the first day of August, however, when

Phil, looking across the rows of cotton plants saw a number of white, fluffy, blossomy looking objects here and there.

"Good!" he exclaimed, starting on a run to find his father and tell him the news. "Father! Father!" he called out, seeing his father coming toward the cotton field, "look, the cotton is beginning to ripen. There are as many as a dozen open bolls in that row. May I pick them?"

"Yes," replied Mr. Piedmont, "they are ripening even earlier than I had hoped. It has been a fine season for cotton, steady warm weather and just moisture enough to keep the plants healthy."

The boy carefully plucked the white lint and hurried off to the brook. He put the cotton between the two smooth wooden rollers, started his little water-wheel, and was delighted to see the cotton pushed through to another roller with sharp teeth, made of tiny nails, which separated the cotton fiber from the seed just as he had seen the big gin separate them. Philip ran to the house to find his father and tell him that his little cotton gin really worked.

The last week at the plantation was a busy

one for Philip. He and Tom visited the brook, took the little cotton gin apart and carried it back to the house to be kept until another year.

As they came near the house one afternoon, Aunt Cassie called out from her kitchen door: "That Top puppy has taken himself off. Can't find him any place."

"Oh, dear!" exclaimed Helen, "do you suppose he is really lost, Phil?"

"Those puppies are always lost," replied Phil, who had spent a good many hours looking for Tip and Top, only to discover them safely at home in some obscure corner. But Top's loss this time was forgotten for the moment by the news Tom had to give them.

"What do you think!" he said, coming out from a shady corner of the stable. "Lady's gone!" Lady was the big bay driving horse, a very valuable and highly prized animal.

"And Top is lost, too!" said Helen, but no one seemed to care about Top just then, although the little dog was soon to prove himself a more useful friend than any one had imagined.

"Where do you suppose Lady is," asked Phil, as he followed Tom back toward the stable.

"She can't be far off," declared Tom; "some one has stolen her."

"If those puppies were any good they could help us find her," said Philip.

"Where's Tip?" demanded Tom in an excited voice. "I think they took Top along with Lady. If they did, Tip will follow Top and we'll find them both."

Without waiting to tell this discovery to any older person, the boys ran in search of Tip, who was curled up asleep on the veranda. Taking the puppy to the stable, Philip set him down near Lady's stall.

"Find Top," he commanded, and Tip needed no urging; in an instant he was off running behind the cotton sheds and up the slope that led to the pine woods, closely followed by Tom and Philip. Now and then the puppy would stop, put his nose to the ground, change his course a little, and then run swiftly on. When he reached the edge of the woods Tip stopped; and here for the first time the boys were sure that they were on Lady's track, for the ground was moist in the deep shade and there were the tracks of a horse and also a man's footprints.

"Look!" said Tom in a half whisper, "Somebody's leading Lady through the woods."

"We must catch up with them and get her," responded Phil.

"Yes, sir!" replied Tom, "but we'll have to be very careful. Any horse-stealer isn't going to hand over a horse to a couple of boys the size of us."

"There goes Tip!" said Philip; and the boys were instantly on a run after the puppy. Tip ran along the edge of the woods for a short distance, and then went nosing his way around a group of big trees.

It began to get dusk in the shadow of the



woods, but Phil did not think of this, so intent was he on following Tip.

"Don't make any noise," Tom cautioned; and both boys avoided stepping on dry twigs, or stumbling over rough knolls or underbrush.

They had been away from home several hours when a short bark from Tip brought them to a standstill. "He's found them!" whispered Phil.

"Climb up that tree and climb quick!" commanded Tom, and in an instant Philip obeyed. Tom chose another tree, and they were none too soon, for they had only time enough to securely settle themselves upon strong boughs when they saw a dark figure coming cautiously along from the direction in which Tip's bark had sounded; and then they saw the same figure disappear again in the shadows.

The boys slid down the trees and crept cautiously along behind the disappearing figure. Tip did not bark again, and the boys did not dare keep very near the figure.

"Scrooch down, Phil," whispered Tom, and the boys hid behind a bunch of thick shrubs.

"There's Lady," whispered Tom, and through the darkness Phil made out the figure of a horse

tied to a tree, but neither the man nor the puppies could be seen.

For a long time the boys did not know what to do. Finally Phil whispered, "Tom you must go home and get Father and Mr. Smith. I'll stay here and watch. If he leads Lady off I'll follow, or find some way of getting her home."

"It must be nearly midnight," replied Tom, "but I'll go;" and Tom vanished silently in the darkness of the woods, while Phil crouched behind the bushes never taking his eyes from Lady. He listened intently for a bark from the puppies, but none came.

The early morning light was creeping in among the trees when Phil heard his father's welcome voice and dared to stand up and call out: "Here we are, Father!"

"What's become of the horse thief?" asked Mr. Smith, as he untied Lady's halter.

"Evidently got frightened," said Mr. Piedmont, who was so grateful for finding his son that he thought little about the horse. The loss of Lady had been almost forgotten when neither Philip nor Tom could be found; and it had been an anxious time on the plantation until Tom appeared with

his story of Lady's being hid in the woods and of Philip's watching over her.

The thief had disappeared and no trace of him was discovered. Mr. Piedmont praised Tom for his quickness and courage, and said that he was very proud of Philip. The boys were both very tired and hungry, and Mr. Piedmont put them on Lady's back and started them for home.

"But it's too bad we couldn't get Tip and Top," said Philip, as Lady carefully made her way through the woods.

They had just reached the edge of the woods, however, when a chorus of joyful barks made Lady start into a more rapid pace, and the two puppies came jumping out from a snug little hollow where they had evidently been asleep.

It was a joyful procession that came into the stable yard. The puppies running ahead were warmly welcomed by Helen; and when Lady with the two boys on her back, closely followed by Mr. Piedmont and Mr. Smith, came in sight, a loud cheer was heard from the men at work ginning and baling the cotton.

—*Alice Turner Curtis*
(Abridged)



FLAX AND LINEN

A great deal of cloth is made from the fibers of another plant called flax. The cloth woven from the long fibers of the flax is linen. Some of your handkerchiefs and collars are linen. You may wear whole dresses or suits of linen. Your shoes are stitched with linen thread; and in your home you probably use linen napkins, tablecloths, and towels. Linen as well as cotton, you see, is very useful to the people.

The cotton fiber, you remember, is obtained from the fruit or boll of the plant. The stems

of the flax plants, however, are the parts that contain the fibers. They reach down from the bright blue flowers clear to the roots of the plant. Sometimes they are forty or fifty inches long. Thread made from these long fibers is stronger than thread made from the short fibers of the cotton plant. For this reason linen cloth is more durable than cotton cloth.

It is hard to get these long fibers out of the woody stem that surrounds them. In some way, the outer bark must be removed; so the flax-growers after pulling the plants up by the roots often leave them lying in the fields to rot in the dew and the rain. Or they put the bundles of flax into a pool, and leave them there until the outer bark is rotted off. They call this *retting* the flax. You would think, from the disagreeable smell, that the whole plant had been spoiled; but the flax-grower does not permit this. He watches the plant very carefully, and does not leave it long enough for the inner part or fiber to become spoiled.

When the bundles of flax straw are removed from the water or from the fields where they have been lying, they are first well dried. Then

they are pounded with paddles or run through a machine that breaks the brittle woody stem into fine bits. This is called *scutching* the flax. When the scutching is finished only the long silver gray fibers are left.

Our great-great-grandmothers used to take bunches of these gray fibers and by using their spinning-wheels turn them into thread which they later wove into cloth. Of course, the cloth made from the fibers was gray, too; so our great-great-grandmothers spread this gray cloth out on the grass to bleach in the sun and the rain. Later they made sheets, pillowcases, table linen, and clothing from the snow-white cloth.

But the invention of machinery has changed all this. Now the silky gray fibers are sorted and tied up in bales of about two hundred pounds each and are sent to the linen mills. Here men and women and powerful machines do the work that our great-great-grandmothers used to do. They *hackle* or comb the fibers to get out the long fibers, which they use for the finest linen. The short fibers, or tow, they make into cheap goods.

Not all flax, however, is used for making

linen. Flax, like cotton, bears seeds that contain a great deal of valuable oil. However, flax that is to be used for making cloth must be cut before it is ripe while the fibers are silky and fine. The seeds of this flax are too green to be used for making oil; but some farmers raise flax and let it ripen so that the oil can be pressed out of the ripe seeds.

The oil from these flax-seeds is called linseed oil, and is used in making the paint on your house, the varnish on your chairs and tables, and the linoleum and oilcloth in your kitchen. It is also used in making the leather in your shoes and the ink with which this book is printed. The linseed cake, which is the part of the seeds left after the oil has been taken out, is fed to cattle and sheep.

Most of the flax raised in our country is made into linseed oil. That work can all be done by machinery, while much of the work of getting the fiber out of the flax must be done by hand. Hand labor in our country costs a great deal; so flax for linen is raised in countries where hand labor is cheap. Then we buy the durable linen cloth from those countries.



THE STORY OF A PAIR OF SHOES

Pilgrim children liked to sit in the shop of Thomas Beard, a shoemaker who had come to the New World in the *Mayflower*. Old Thomas had brought with him a supply of hides to make into boots and shoes for the settlers. He sat in his little shop, day after day, measuring the feet of settlers who came in to order a new pair of shoes, or sewing and pegging away at the stout leather from which

he made the shoes. So often did the Pilgrim children watch Old Thomas cutting out the shoes from the leather, waxing the threads to sew the pieces of leather, and boring holes into the leather with his sharp little awl, that they soon knew just how a shoe was made. Some of them were sure that they could take Old Thomas' tools and make a pair of shoes; but they knew that they could not turn out such a fine pair of shoes or make them so quickly as Old Thomas could; for only three days after a Pilgrim had ordered his new shoes, Old Thomas would have them ready for him.

Other shoemakers just as skilful as Thomas Beard journeyed through the country from one farm to another, staying at each house long enough to make shoes for the whole family. Usually the father and his sons had made the leather for these shoes from the hides of cattle or sheep raised on the farm. The traveling shoemaker furnished the thread, pegs, buckles, tools, and the skill needed to change the leather into shoes. Since the shoes were put together in the homes of those who wore them, these people learned all about how shoes were made.

Most of us know very little, however, about

the making of a pair of shoes. When we want a new pair of shoes, we go to the shoe-store, where a clerk measures our feet and brings out pair after pair of shining new shoes. We do not have to wait three days for them to be made! They have been made ready for use perhaps hundreds of miles from where we live. Instead of a single shoemaker, between one and two hundred men have worked together to make the pair of shoes we buy.

Some of these men have worked in large disagreeable smelling tanneries changing the hides into leather. The hides from the animals, you know, are covered with hair or wool on the outside and some flesh on the inside. If the hides were left like this, they would decay; or if they were dried they would become hard and unfit for use; so they are placed in great vats full of lime and water and soaked until the hairs are loosened. Then the workers scrape off the hair with long knives and put the hides into other vats which are filled with a liquid that changes the hide into soft durable leather. This liquid contains tannin, a material that comes from the bark of hemlock and oak trees. The hides are left to soak in the

vats for months. At last when the mixture has changed them into leather, the hides are taken out, and are dried, pressed, dyed, and polished. The hides are then ready to be sent to a shoe factory.

Many of these factories are large enough to employ one or two thousand workers. Each worker in the factory has a certain task to do on each pair of shoes. All day long, some men cut out only the vamps, or the part of the shoe that goes over the toes and front of the foot. Others cut out only the uppers, or the part that goes on the instep and around the ankle. There are boys that day after day clamp on buttons, buttons, buttons. Other men work with the heavy leather soles for the shoe, run the great sewing-machines, or put on the heels and polish the shoes. Each pair of shoes has had to pass through one hundred twenty-two different operations before it is finally packed into a box and sent to the shoe-dealer. But so skilful do the workers become from doing their one task over and over, and so speedy are the machines they use that it now requires only a few minutes to cut out and complete a shoe.

THE FARMER'S WORK

Have you ever lived on a farm? If you ever have, you know how much fun a boy or a girl can have there, playing in the hayloft, wading or swimming in the creek, gathering eggs, or riding some old horse that you call Gentle Bess or Old Dan.

You know, too, how much hard work there is to be done; the farm is a busy place, and the farmer is a busy man. His work is quite different from the work done in factories, where the men do only the same task over and over every day of the week and every week of the year, and where they work the same number of hours each day. The farmer has different work to do every season of the year, and the number of hours that he works in a day cannot be regulated so definitely as it is in the factories. At certain times, on account of the weather, it becomes necessary for the farmer to work early and late.

In the spring, the farmer plows the fields and prepares them for the crops. A little later, he sows oats and barley, and in some places, spring wheat and other small grains. These small grains are distributed very evenly over the field and are

covered the right depth by means of a large grain drill that is drawn by horses or a tractor.

A little later, many farmers plant corn. In an early day and in small fields, the kernels of corn were dropped on the ground by hand and were covered with a hoe; but large cornfields are now planted by using a machine. This planter drops the right number of kernels for each hill, and also covers them to exactly the right depth. With such a corn-planter, the farmer plants two rows of corn every time he drives across the field.

After the corn is planted, the farmer is still kept busy harrowing and cultivating the ground in order to keep the weeds from growing and choking out the small, tender blades of corn. In the southern states, the farmers raise small grain and corn; and in some of the states they also raise rice. The most valuable crop, however, that the southern farmers raise cannot be raised in the North or West; this crop is cotton.

The farmer usually plants a garden, too. If the farmer has an orchard, he must spray the fruit trees in order to kill the insects that would otherwise ruin the fruit and possibly kill the trees.

On most farms, there are also many little

chickens, pigs, lambs, calves, and colts, which the farmer and his wife have to help take care of. If the farmer keeps a flock of sheep, the sheep must be sheared of their heavy wool fleece sometime in the spring. Spring and early summer are therefore very busy times on the farm.

Before it is time to harvest the small grains, the meadows must be mown. The farmer formerly used a scythe to mow the grass, but now he uses a mowing-machine, which cuts a strip of grass about five or six feet wide. As soon as this green grass is dried by the sun and the wind, the farmer rakes it up, and the hay is then placed in stacks or stored away in the hayloft in the barns. City boys and girls think it is great fun to have a chance to ride on a load of hay.

Harvesting begins when the small grains ripen and continues until the corn is in the crib. Even with the help of modern machinery, a great deal of work is required to harvest the grain and store it away.

There are other crops, too, like potatoes, turnips, and cabbage that have to be taken from the ground and stored away for winter use.

In the winter, the farmer is still a busy man.

As there are no longer green pastures on which his stock can graze, he is obliged to feed the animals. Some of the sheep, pigs, and cattle, he turns into a field or a barn lot during the day, but at night, he must put them into the stable and feed them. Chickens, too, have to be fed, the eggs must be gathered, and the cows must be milked.

When there is no plowing or harvesting to be done on the farm, the farmer has other things to keep him busy. He fixes fences, repairs the farm buildings, or puts in a new ditch or tile to drain one of his fields. What a busy man he is!

Did you ever think what it means to us to have millions of these busy farmers? They are working, not just for themselves, but for all of us. Where did the clothing that you wear come from? Where did the leather for your shoes come from? Where did the bread, meat, vegetables, fruit, milk, cream, and butter you had today come from? To every one of these questions you answer, "From the farm!" You and everyone else would soon have very little clothing to wear or food to eat if the busy farmers should all quit work.

THE STORY OF WHEAT

Once upon a time wheat was a wild grass growing in the fields. Men found out that the seeds were good to eat; so for many hundred years, they have been planting the grains of wheat, gathering the new crop, and making bread from it.

The farmer plants his wheat at different times in different parts of our country. In some places, where the winters are mild, he plows the ground and sows the wheat in the autumn. It grows two or three inches before the first frost comes. By that time, it is strong enough to live through the winter. It covers the fields with a green carpet while the rest of the earth is bare and brown. It is called "winter wheat." In other parts of the country, where the winters are long and hard, the farmers sow their wheat after the snows melt in the spring, and they reap it in the autumn. This is called "spring wheat."

When the seeds begin to grow, they send up tender young shoots that look like grass blades. They grow rapidly in the sun and the rain. Within a few months the wheat is as high as a man's waist. Each tall stalk bears a head

filled with soft milky seeds. In the hot sunshine the seeds grow bigger and harder, and the tall green stem turns to a golden yellow. When the heads begin to bend over, the farmer knows they are ready to harvest.

The cutting of wheat used to be done by hand. Farmers now use a machine called a binder, which not only cuts the grain but binds it into bundles. Every few rods the binder drops six of these bundles on the ground. Picking up these bundles and setting them in shocks is the only part of the wheat harvesting that is now done by hand.

Some farmers leave their wheat in the shocks in the field until it is threshed. Other farmers bring it in from the field and stack it up in ricks as high as a barn. They leave it there until the threshing-machine comes to separate the wheat grains from their brown wrappings and make them ready for the mill.

Threshing day on the farm is the most exciting time of the year. It means early rising for everyone. The farmer's wife and daughters have a busy day before them preparing the meals for the hungry threshers. The farmer and his sons must help haul sheaves of grain to the threshing machine.

Sometimes on the great farms of the West, one machine cuts and threshes the grain at the same time; but on the small farms the farmer has had the wheat cut for some time, waiting for the threshing-machine and its crew to arrive at the farm.

One can hear the threshing-machine rumbling down the road before it comes into sight. It blows a shrill whistle to give warning that it is approaching. Finally it puffs into the barnyard and up beside the wheat ricks. Soon everything is ready for the day's threshing.

Do you know how men used to separate the grains of wheat from the chaff, or worthless hulls of the grain? They laid the grain on the hard ground and pounded it with sticks or flails. Later they spread the grain on the barn floor and had mules and oxen to trample out the grains. What slow and wasteful ways of threshing these were! One of our large threshing-machines does the work of thousands of flails and hundreds of mules and oxen. Indeed, a single threshing-machine sometimes threshes out more than a thousand bushels of wheat a day.

The men pitch the yellow bundles of wheat

into the threshing machine from the large loads which they have driven up beside it. As they go through the threshing-machine, the bundles are torn apart, beaten, and shaken until not a grain is left in the straw.



A powerful fan blows the chaff and the straw into a pile behind the threshing-machine while the threshed grain runs from a spout at one side. The wheat comes out so fast that it keeps several men busy holding bags to catch it. Sometimes it is not put into bags at all, but is poured into large grain wagons each holding about seventy bushels and these wagons are then hauled to the elevator. Or the farmer may store the wheat in a granary on the farm and keep it until he thinks he can get the best price for it. Then he takes it to the elevator and sells it.

These elevators often are ten or twelve stories high. Millions of bushels of wheat are stored in them until it is possible to ship the wheat to market. Then the wheat is sent to the mills to be ground into flour.

For more than four thousand years, men had to grind their wheat by hand. They put the grains into a hollow stone and pounded them with another stone until they had broken the grains into small pieces. The old word for "pound" was "bray" so that food made from pounded grain was said to have been "brayed"; from this old word we get our word "bread."

By and by men found out how to use wind and water to turn a mill wheel to grind the grain. Now they use steam and electricity to run machines to grind the wheat into flour.

When the wheat goes to the flour mill, it first has to be cleaned, for it is dusty and full of little hairs and bits of straw and weed seeds; so it is sifted and washed and dried before it is ready to be ground into flour.

Instead of grinding the wheat grains between stones, men now grind them between heavy steel rollers. The grain is run through six or eight sets of rollers. Each set crushes the pieces a little finer. After each grinding, the fine pieces of the grain are sifted through fine silk cloth. What is finally left is called bran. The snowy flour, which has sifted through the cloth, is packed in paper or burlap sacks or in wooden barrels and carried away to different parts of the world.

The rest of the story about wheat you know. Some of the sacks or barrels of flour are finally carried to our homes and to our bakeries, where the flour is made into bread. Bread is the most important food we use. Without bread we feel that something is missing from any meal.

OTHER GRAINS USED FOR FOOD

When the early settlers came to America they planted some wheat which they had brought with them; but this wheat did not grow well at first and the settlers might have starved if they had not found a new grain called corn, which the Indians showed them how to grow. Year by year more of this grain was planted. Today we raise about three billion bushels of corn each year—a crop which is three times as large as our wheat crop.

You may wonder what is done with so much corn. Four-fifths of it is fed to cattle, horses, sheep, and hogs. People eat the rest of it in many different forms. Some corn is raised to furnish corn on the cob or to be canned for winter use. Some of the grain is ground into meal to be used for bread and mush. It is also used in making cornflakes, cornstarch, laundry starch, corn syrup, hominy, and oil for cooking purposes.

Farmers used to let the cornstalks go to waste. When the fields were being made ready for the spring planting, great fires of blazing cornstalks could be seen in every field. Now even the cornstalk is used. Sometimes after the ears of corn have been gathered, the cattle are turned into the

fields to eat the dry stalks and blades. Sometimes the stalks are cut and fed to the stock like hay. Or while the plant is still green, it is chopped up and stored in tall tanks called silos; this makes good winter food for dairy cattle.

In the warm wet lands of the South, another grain is raised in great quantities. This grain is rice. More than two hundred years ago some sailors whose boat had been blown out of its course by a storm, landed in the southern part of our country. When they finally started on their way again, the captain left a small package of unhusked rice for the settlers. They planted the rice and were soon supplied with food from it. This was the first rice raised in our country.

Rice is grown in swampy places. The best rice grows in places where there is a foot or two of water above the roots about the stem. For this reason the rice fields are found on the marshy lands near the coast and by the banks of rivers, where they can be easily flooded. Because the fields are so wet, rice is often cut by hand and bound up in small bundles ready to be threshed. In some places machines with broad wheels, which will not sink very far into the damp earth are used to cut

the rice. From the fields the rice is taken to the mills for threshing, cleaning, and husking. Finally each little grain is polished and packed for the market. Since we raise only about half enough rice for our people, we have to buy rice from Japan and China.

Besides wheat, corn, and rice, we raise other grains for food. They are oats, barley, rye, and buckwheat. You have perhaps eaten the oats in oatmeal, the barley in soup, the rye in bread, and the buckwheat in griddlecakes.

These grains are raised and harvested much like wheat. They are cheaper than wheat because they will grow upon poorer soils and in many different climates. The most useful one of these grains is oats. Millions of bushels of oats are fed to horses and other animals. Oats are being used more and more in food preparations, as it has been found that persons who eat oatmeal and bread made from oats are usually strong, healthy people.



MILK—THE MOST PERFECT FOOD

PART I

During the World War a ship bearing a crew of daring men sailed the seas, sinking, burning, or capturing the enemy's vessels. After about eight months of this raiding, the ship was forced to dash for the nearest port with more than one hundred of its men almost dying and the rest of its crew suffering from some strange illness.

What had happened? All the men had been chosen to go on this ship because they were strong and healthy as well as daring. They had seemed to have plenty of food during their months at sea. Every day they had been served meat, mashed potatoes, white bread, sweetcakes, and tea or coffee. Yet it was found that the lack of certain foods had made these strong men ill. As soon as the men were given fresh milk, vegetables, and fruit to eat, they quickly got well.

Although a person may eat three good meals a day, you see, he may still be starving for certain kinds of foods. So if we wish to be happy and well we must eat the right foods.

Milk is one of these necessary foods. In fact, it is the most perfect food for children. They can do without all other foods for a long time and still be plump and strong if they have plenty of milk to drink. They need to drink at least one quart of milk a day. Do you drink as much milk as you should each day?

This is what some doctors did to prove what a necessary food milk is. They took little twin rats which were so alike that they could not be told apart, and put them into separate cages. They fed these rats the same diet except that one little rat was given milk to drink while the other rat had no milk. How do you suppose the rats looked at the end of several weeks? The little-rat-that-had-milk had grown into a big plump rat with bright eyes and a healthy glossy coat of fur. But the little-rat-that-had-none was a small half-starved creature with dull unhealthy fur. However, as soon as he was given milk to drink, he began to grow.

Milk is one of the cheapest foods as well as the most perfect food; it can take the place of many foods that cost a great deal more. The quart of milk that you should drink every day

has as much food in it as eight eggs, two pounds of potatoes, or three-fourths of a pound of lean beef.

PART II

The earliest use of milk was for making cheese. Milk had to be made into cheese because that was the only form in which it could be kept over long periods of time. The first civilized men soon learned to let the milk sour and to separate the curds from the whey, or water. They then pressed the curds into a solid mass, which they cured and let ripen into different kinds of cheese. When the cheese was ripe and ready for use, it had almost as much food value as milk. It was not likely to spoil. It could easily be carried from place to place. It was, moreover, so delicious a food that men have always made cheese a staple article of their diet.

Years later, men found out quite by chance that butter, too, could be made from milk. This is the way in which that discovery was made. The Arabs, whose home is in the desert, often carried a supply of milk in skin bags slung across the backs of pack camels. One day after a long

journey, when they opened one of these skin sacks, they found something quite different inside of it. Floating in the liquid were lumps of something soft but solid. The Arabs tasted the lumps and thought them delicious. They rubbed some of the stuff on their faces and thought how beautiful they at once became.



You can imagine how happy the Arabs were after this when they happened to open a sack which contained these delicious and mysterious lumps of butter. But it was a long time before they thought of doing anything to help in making butter. At last some Arabs tied a few of these skin bags of milk to the backs of their fastest horses and rode at top speed back and forth, up and down the sands of the desert. How excited they were when they opened the sacks and found some of the delicious lumps of butter!

It was dangerous and expensive, however, to churn butter by this method; only the richest Arabs could afford it. Finally they found out how to lay the sacks on the ground and beat them with sticks to churn or beat together the little balls of fat and thus make butter. Then everyone, rich and poor, could have butter to eat.

In our own country we use about three billion gallons of milk every year for making butter. Most of this butter is made on the farms, but great quantities are produced in factories where everything is done by machinery that is run by steam or electricity.

The milk is first put into a machine called a

separator, which whirls around rapidly, separating the cream from the skimmed milk. The skimmed milk is usually fed to the hogs. The cream is put into a churn—perhaps a small churn that is run by hand or a large churn that is run by electricity or steam. These churns toss the cream around until the little globes of fat unite, forming butter. The butter is then worked to get all the buttermilk out of it, washed in cold water, salted, and packed into tubs or boxes for the market.

PART III

Perhaps you have been in the country in the summer time and have gone out to the pasture to drive the cows home to be milked. Perhaps you have even helped to milk the cows and carry the pails of rich yellow-white milk to the milkhouse or cellar. You know, then, that the best cows are not always the ones that give the most milk; they are the ones that give the most cream.

On the great plains in the western part of our country, many cattle thrive on the coarse, brown grass. As these cows turn most of the food they eat into flesh and muscle, rather than

milk, we call them beef cattle. Dairy cows, however, turn most of their food into milk rather than into beef. Each dairy cow should give at least six quarts of milk a day for three hundred days of the year.

In our country we have about twenty-five million dairy cows. In one year, they produced fifty billion quarts of milk. If you would like to make a picture in your mind of just what that means, imagine all this milk put into a river as wide as a city street and three feet deep. This river of milk would reach from New York to San Francisco. But we need every bit of it to furnish us with fresh milk, cream, cheese, butter, and canned milk for use where fresh milk cannot be obtained.

In the dairy regions, farmers who own several cows furnish the people in the nearby towns with milk; they have regular milk routes and deliver the milk from door to door. Each city, too, has to have milk brought in from the farms and dairies and carried to every house and hotel. This milk is sent to the cities in immense quantities on trains or trucks, which often travel two or three hundred miles before they reach the



place where the milk is to be used. It has to be kept ice-cold on the way so that it will not spoil. The very latest invention for carrying milk is the thermos truck. This is a glass-lined tank much like a giant thermos bottle mounted on a powerful motor truck. On a thermos truck, hundreds of quarts of this most perfect food, milk, can be carried for hundreds of miles and delivered at its destination as sweet and fresh and almost as cold as when it left the dairy.



THE MILKMAN

Early in the morning, when the dawn is on the
roofs,
You hear his wheels come rolling, you hear his
horses' hoofs;
You hear the bottles clinking, and then he drives
away:
You yawn in bed, turn over, and begin another
day!

The old-time dairymaids are dear to every poet's
heart—
I'd rather be the dairyman and drive a little cart,
And bustle round the village in the early morning
blue,
And hang my reins upon a hook, as I've seen
Casey do.

—*Christopher Morley*

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VEGETABLES

Vegetables are another food that we must eat if we wish to be strong and healthy. Some of these vegetables give our bodies material to turn into firm muscles and red blood; some give material to be made into strong bones and teeth; others help to keep our bodies warm.

Like milk, vegetables have in them a magic substance called vitamins. Without these vitamins we could neither grow nor be healthy; so we should eat at least two vegetables every day. How many vegetables do you usually eat?

The leaves of some of these vegetables are the part we eat. We have found that the stems or the roots of others are good to eat. Still other vegetables furnish us with seeds or fruit which we eat. Here are the names of some vegetables which are good for every boy and girl. Which part of these vegetables do we use for food—roots, stems, leaves, or fruit?

lettuce	potatoes	squash
celery	carrots	asparagus
turnips	onions	string beans
cabbage	spinach	parsnips
pumpkins	peas	tomatoes

In the cities people do not have space enough to raise their own vegetables. The houses, stores, factories, and other buildings are crowded close together. City people therefore have to depend on others to furnish them with their vegetable food. In the districts just outside the city are acres and acres of truck farms where vegetables of all kinds are raised for the city markets.

Most of these truck farms contain only ten



or fifteen acres. One man cannot take care of a large truck farm; there is too much work to be done. The plants must be weeded and hoed. The insects and worms must be destroyed. The vegetables must be hauled to the markets in the city or peddled from door to door by the farmer. The owner of even a small truck farm has a great deal of work to do.

Even when the truck farms are covered with a blanket of snow, the people of the cities of the North want fresh vegetables. Some of these vegetables are supplied out of season from hot-houses, or greenhouses near by; other vegetables are brought by fast trains and ships from the winter gardens of the South; but vegetables which are sent all this distance must be sold at higher prices; so many people do not buy them. They use canned vegetables when fresh vegetables cost too much. Not many years ago, canned vegetables were almost unknown. Now it is possible to buy almost any kind of vegetables in cans at a moderate cost. This means we can have the magic vitamins from vegetables during every season of the year, whether we have much money to spend for food or not.

THE STORY OF MEAT

In the cold lands of the far North, where there is winter during nine months of the year, no farming can be done; so the people of this region have to live without vegetables; they have to live almost entirely on reindeer meat or fish. In China, Japan, India, and other parts of the world there are millions of persons who have never tasted meat; they live on plant food alone. In most lands, however, people have found that it is best not to eat all meat or all vegetables, but to eat some of both kinds of food each day.

The meat we eat contains very few vitamins. Vitamins, you remember, are the magic substance in food that makes us grow and keeps us healthy. But meat contains other food substances; it contains the material to give our bodies heat and fat; so, as a rule, it is well to eat meat once a day.

Do you know where the meat we eat comes from? On almost every farm in our land some cattle, sheep, and hogs are raised to supply meat. Even if the farmer is giving most of his time to raising wheat, cotton, or other crops he

usually has a few animals. In one part of our country, however, cattle raising is the chief industry. Millions of beef cattle are raised on the great ranches in the western states. There the animals can wander for miles over the plains, grazing upon the short sweet grass. Not enough rain falls in this region to make farming a successful business. There is enough grass on the plains, nevertheless, to furnish food for cattle the year round.

Some of the cattle ranches in this region cover as much land as a good-sized city. In Texas there is one ranch so large that the men who own it would have to ride their horses for more than a week to cross from one side of the ranch to the other. More than a hundred thousand head of cattle graze on this one ranch.

Each autumn the cowboys on fleet ponies round up the cattle so that those which are ready to be fattened for market can be separated and shipped eastward to the corn or cotton-raising regions. Here the lean grass-fed cattle are kept from three to nine months, feasting on corn or cottonseed meal, so that every animal gains one or two pounds each day. The animal has to

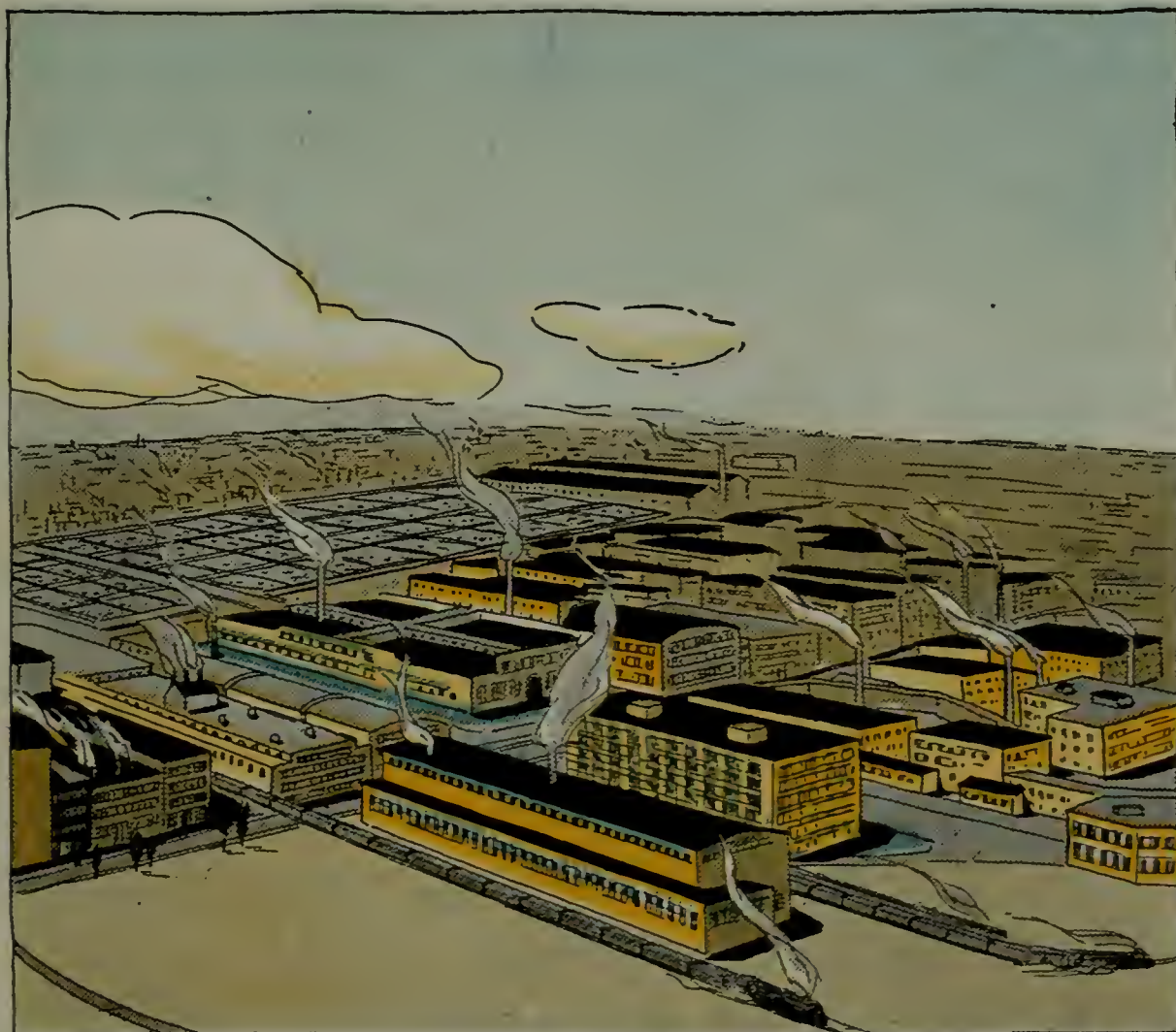
eat about ten pounds of corn to make one pound of beef. You see why meat costs more than grain and why the people of many lands cannot afford to eat meat.

At last when the cattle become fat they are taken to market. Men used to drive the herds of cattle to market on foot. The old trails were worn hard by the thousands of hoofs; but now the animals are carried by rail in special cattle



cars. They are carefully treated on the cars. One man has charge of a certain number of cattle and stays with them all the time, seeing that they get plenty of food and water. Then when they reach the city they are in good condition to be sold to one of the great meat-packing factories.

In these meat-packing plants tens of millions of cattle, hogs, and sheep are each year turned



into tons of beef, pork, and mutton. The meat is placed in cold storage cars which carry it to the butchers in cities and towns over the whole country. So much meat is packed in these plants that, after supplying the need in this country, a great deal can be sold to foreign countries each year.

In the meat-packing industry every part of the animal is used for some purpose; nothing is wasted. Leather, you remember, is made from the hides. Buttons, combs, and hairpins are made from the bones; glue from the hoofs and scraps of bone; from the fat, soaps and oleomargarine. Even the blood of the animals is used to make fertilizer. In each large meat-packing factory skilled men are always trying to discover new uses for parts of the animal that once were wasted.

There are agents of the United States government in every meat-packing plant. These men see that the laws about meat packing are carried out. These laws are very strict. Only perfectly healthy animals can be used for meat, and every stage of the process must be carried out under the most sanitary conditions possible.

OUR LUMBER INDUSTRY

When our country was new it had many dense forests. If an early settler could have gone up in a flying-machine and could have traveled rapidly over our great country, he would have found that almost half of the land was covered with large forests. At that time, pine, oak, walnut, maple, cedar, spruce, and many other kinds of trees grew in great abundance.

But the settlers could not raise crops in forests. They needed cleared land on which to grow crops. They also needed fuel and material for building houses and making furniture and ships; so they kept cutting away the forests. Sometimes they wasted as much of this timber as they used. Sometimes great forest fires swept away whole forests. New inventions, too, like paper made from wood, or the railroad, the telegraph, and the telephone which require countless ties and poles, kept demanding more and more wood. Today only about half of these great forests remain.

Lumbering is, nevertheless, an important industry. Scattered over the timber regions of our country are many lumber camps where



hundreds of men chop and saw away at the trees that have been selected for lumber. In all there are several hundred thousand "lumber-jacks" engaged in the lumber industry; and the product

that they prepare for market often brings more than a billion dollars in a year.

Before the lumbering season begins crews of trained woodsmen go through the woods marking the trees to be cut down. This is called "blazing" the trees. No trees are to be cut except those which are marked. In this way the young trees are left to grow into big trees in order to provide lumber in future years.

After the trees have been marked, the lumberjacks come with large saws to cut them down. Before they start to work, they decide which is the best direction to have the tree fall so that it will not injure other trees; then with their axes they cut a great notch or gash on that side of the trunk. They begin sawing the trunk from the opposite side, using a double-handed saw about six feet long. One man works at each end of this saw, vigorously pulling the sharp teeth back and forth. In less than an hour even the largest tree crashes to the ground.

Other men trim off the large branches and saw the trunk into logs ready to be taken to the railroad or to the sawmill. In some places the logs are dragged by oxen or horses to a nearby

stream to float down to the sawmill. Sometimes the logs float downstream singly; sometimes they are bound together into a rude raft called a "boom." The men who go with these rafts live in shanties built upon the rafts. Their business is to see that the logs do not pile up together and form a "jam." This is dangerous work, for the men might easily be dragged under the water and drowned. An expert lumberjack, however, seems to run along a rolling, tumbling log as easily as on a sidewalk.

Another common way of getting the logs to the mill is to fasten a steel rope around the log. The other end of the rope is fastened to an engine which drags the log out of the forest. Then it can be loaded by a sort of derrick either upon a flat railroad car or, if it is not too large, upon a truck.

After the logs reach the sawmills they are handled almost entirely by machinery. They are cut into several boards at once by gang saws. If their surface has to be smooth, the boards are planed by special machinery. Since new lumber contains a great deal of sap, it must be dried so that it will not warp and crack. Sometimes

it is stacked in huge piles in the open air and allowed to dry from one to four years. The piles of boards we see in lumberyards are usually being dried, or "sun-dried." Or lumber may be heated in a kiln for a few weeks to dry up the sap. Then it is ready to be shipped to places far and near, to be used in hundreds of ways.

By looking at the houses in your neighborhood, you can tell what a demand there is for this lumber. Thousands of houses are built each year entirely of wood. Even if some other material, like brick, is used for the outside of the building, a great deal of lumber is needed to finish the inside. Floors, window frames, doors, and a dozen other things call for a great deal of lumber in finishing a house.

Besides the large amounts of wood used for buildings a great deal is needed for other purposes. We use a large quantity for furniture, for telephone and telegraph poles, for railroad ties. We grind up whole forests into wood pulp to make into paper and cardboard. Boxes, barrels, matches, clothespins, wooden spools, lead pencils—these are just a few of the things for which our forests are being cut down.



WHAT THE TREES GIVE US

Lumber is not the only product that trees give to us; there are dozens of other valuable products obtained from trees. Some of these we eat; others we wear. Every time a person reads a newspaper, takes an automobile ride, paints a house, or seals up a tin can of fruit, he is using some product obtained from trees. See how many of these tree products you can think of.

Do you know that the fruit which the trees of our country give us each year is worth more money than the fruit crop of any other country in the world? Apples, pears, plums, prunes, cherries, peaches, oranges—these are just a few

of the fruits that are sold each year for many million dollars. Our nut crop, too, is valuable. On the nut farms of the southern states tons of walnuts, almonds, and pecans worth millions of dollars are harvested from the trees. The walnut crop of southern California is so important that each year the school children of many districts have a "walnut vacation" in October so that they can help harvest the crop. Another tree product which we eat is maple syrup. The early settlers of our country learned from the Indians the secret of tapping the sugar maples to get the sap that is to be boiled until it is a rich brown syrup. How delicious this tree product is!

Years ago, our paper was nearly all made from rags. Such paper was expensive and only a limited quantity of it could be made. Now nearly all paper is made from wood, and whole forests are cut down every year to make the millions of tons of paper that go into our newspapers, magazines, books, letters, wrapping paper, etc. The newspapers alone use enough paper in a year to put a sheet of paper over the entire United States east of the Mississippi. It is hard to realize the importance of a plentiful supply of

cheap paper for printing. It is doubtful whether a country as large as ours could exist without it.

When boats used to be made almost entirely of wood instead of iron and steel, the products of the yellow pine tree of the South were very useful in ship building; so these products—tar, pitch, resin, and turpentine—were called naval stores. Tar helps to preserve wood that must be exposed to the water, pitch helps to fill cracks and seams in boards and also helps to make them watertight; turpentine is used in making paints and varnish; and resin is used in sealing-wax, soap, and varnish. What a valuable tree the yellow pine is!

All of these tree products grow in our own country; but from the trees of foreign countries we get other valuable products. Cork, which we use in a dozen ways, is the bark of a tree. Do you remember how the bark of hemlock and oak trees is used to change the stiff hides into leather for our shoes? Several trees give us the materials for medicines. The rubber which we use in automobile tires, rubber boots, raincoats, and a hundred other things, was once the milky sap of a tree that grows in South America.

SAVING OUR FORESTS

PART I

What shall we do when all our forests are gone? The best half of them have already been used or destroyed. Great quantities of this lumber, to be sure, have gone to build houses and barns, furniture, wagons, ships, bridges, and a thousand other useful things; but still larger quantities of it have simply gone to waste. Years ago the trees often were cut not because lumber was needed but because they grew on land that was needed for farms. Hundreds of maple and walnut logs which would be worth a fortune today were rolled into great piles and burned merely to get them out of the way.

Careless lumbermen have wasted large areas of forest. Millions of young trees, too small to be sold, have been crushed by falling trees or have been cut to make room for logging roads. To make some of these roads, good timber has been cut when poorer timber would have done just as well. Trees have been cut leaving tall stumps so that the best part of the trees was wasted. The worthless twigs and tops of trees

have often been left to clutter the ground and furnish kindling for future forest fires.

These forest fires start in many different ways. Sparks from railway trains falling on the dry grass beside the tracks have started a great many fires. Sometimes lightning has caused one of these destructive fires; and again, campers, hunters, and tramps who have been careless about their matches and camp fires often are to be blamed for other forest fires. Fanned by the winds and fed by the dry twigs and brush left by careless lumbermen, the fire spreads in sheets of flame over the hillsides. It sweeps on for



miles; it catches the leaves and branches of the trees. At last even the great tree trunks catch afire. During the nine hours that one of these forest fires lasted, two and one half million acres of forest were burned; and along with the valuable timber, three villages, one hundred sixty persons, one thousand head of cattle, and countless fish and wild animals were destroyed. In just one year, there were fifty-two thousand forest fires in our country. These fires swept over more than eight million acres of forest land. Think of the timber that was needlessly wasted!

There is more waste of valuable wood, too, when the logs that have been cut reach the saw mills. Only about half of each log is actually used; the rest is usually burned to get it out of the way. Too often the bark, the sawdust, and the slabs, which might at least be prepared for fuel, are wasted.

Each year we are cutting more than three times as much timber as has grown during that time. If we keep on cutting and wasting our forests in this way, they will be gone in thirty or forty years. What shall we do then?

PART II

Years ago, Spain, a country across the ocean, had many rich forests and fertile lands; but the people of Spain wasted these forests, carelessly destroying small trees that were not yet large enough for lumber, and cutting big trees without planting young trees to take their places. Today Spain has only a few forest regions, and much of her land is dry and barren.

“Let us learn a lesson from Spain,” some of the wiser people of our country are saying. “Let us not recklessly destroy our forests, or we, too, shall have a dry and barren land.”

Perhaps you are wondering how trees can affect a land's water supply. This is the way they do it. On every bright sunny day each large tree draws several barrels of water from the deep soil or from hidden springs reached by its many roots. Through its leaves, it breathes this water into the air. Millions of trees are sending into the air these great amounts of moisture, which at some later time will fall as rain. Destroying these “water breathers” lessens the amount of rainfall a land will have and makes it impossible to raise abundant crops.

Trees not only give much moisture to the air through their leaves, but also help to keep the moisture in the ground by means of their roots. These long roots grow down into the soil, keeping it loose and soft. When the rains come, much of the water sinks into the soft soil instead of running off as fast as it falls.

If the forests are all removed, what happens? There are no leaves, and no roots; the soil becomes hard and compact so that in a heavy rain the water flows off, filling the brooks and rivers to overflowing and causing damage by floods. The result is that when a dry season comes, there is no store of water in the soil to supply the streams. They dry up, and the whole region suffers from a drought. Cutting down our forests means danger, you see, to the water supply of our country.

Cutting down our forests means, too, that the birds and the animals of the woods will have no good homes. The fish in the smaller streams will die during the droughts. The crops will fail. If we cut down all of the forests, the result will be that we can no longer have a country that is prosperous, healthy and wealthy.

No good citizen wants to see any of these things happen; so every one must do what he can to preserve our present forests and also to plant new ones.

Our state and national governments are doing a great deal to preserve our forest growths. Millions of acres of forests are in reservations which the government controls. Perhaps there is one of these forest reserves near your home. These reservations are patrolled by guards; fires are guarded against; the animals in the forests are protected; new trees are planted; lumbering is carefully done so that there will be enough young trees to take the place of the old. In this way our government hopes to save many of our valuable forests.

There is one way in which every boy and girl can help save our forests and make money at the same time—by saving paper. Old newspapers and magazines can be collected and sold to the people who make them into new paper again. And, of course, if you are ever lucky enough to go camping in the woods, you can at least be careful to see that *your* camp fire is really out to the last spark when you leave it.

IN THE NORTH WOODS

PART I

Mr. Sherman, Dick's father, put down the paper as his son entered the room.

"What did Dr. Haughton say, Dick?" he asked, as he stooped to stir up the fire in the big fireplace. "More spectacles in the family, I suppose."

"It is worse than that, Father. It is no books at all for a year, at least." Dick paused, and then continued more firmly. "You will have to turn me out to pasture, I think."

In spite of the boy's attempt at control, his chin quivered.

"Well, well, it might have been much worse—try to think of that. Let us be thankful that a year can repair it all. Now we will think of something for you to do; something you will enjoy, and that will keep you out of mischief."

Mr. Sherman arose and came toward Dick. "Don't worry about it, my boy. We'll make some plans together, and perhaps it will come out better than you think."

Adapted and abridged from *The Story of Lumber*, by Sara Ware Bassett.
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Plan after plan was suggested, but all were finally rejected. Dick was becoming discouraged.

After more than two hours, Mrs. Sherman suddenly said: "I have the very thing for you, Dick! Why didn't I think of it before? How should you like to live with your Uncle Alf in the north woods?"

Mr. Alfred Houston, Dick's Uncle, was a member of the Forest Commission having in its charge the inspection of vast tracts of timber that stretch for thousands of miles.

The instant Mrs. Sherman suggested the idea, Dick's eyes brightened, and he started up eagerly:

"That would be the very thing, Mother. I'd like it above everything else. May I go? Would Uncle Alf let me come?"

"A letter or two will settle that," Mr. Sherman answered, smiling at the boy's earnestness. "It certainly is a fine plan, if it can be carried out. You could learn a great deal about trees and lumbering, and you would be having a jolly good time, too. There are many things you can do, or learn to do, which will help Uncle Alf.

For a week Dick was all impatience, while

letters sped between his home and the distant north woods. Surely there never was such a long week!

Then this telegram came from Uncle Alf:

“Will meet Dick at St. John station April twentieth and purchase his kit there.”

Dick threw his cap high into the air after reading the telegram. It seemed too good to be true!

At St. John station, Mr. Alfred Houston proved that he knew how to purchase just the kind of forest outfit necessary for a boy. When Uncle Alf and Dick started out on the narrow branch railroad for McGregor Lake, a box of khaki suits, corduroys, flannel shirts, woolen stockings, heavy underwear, and low-heeled, waterproof boots went with them. These things did not interest Dick nearly so much, however, as a pair of real moccasins made by Micmac Indians, or a short hunting-knife, both of which his uncle had added to this equipment. The moccasins had gaudily beaded toes, and stout thongs for fastening them; and the knife was in a case of deerskin, with a handle of roughly notched ebony.

Besides the moccasins and the knife, Dick

had two other treasures presented to him by his father before leaving home—a fly rod of split bamboo, and a light rifle.

What boy could have asked for more?

As the train rattled, bumped, and swayed, Mr. Houston talked of the woods, and his work there. Dick understood that his uncle's business was to *save the trees*, but he did not understand just why his uncle should be traveling to a large lumber camp where they were to see trees cut down.

They had been riding nearly two hours before the train stopped with an extra big bump, and fishrods, rifles, sweaters, and satchels were thrown out on the platform of the very smallest station Dick had ever seen.

"Is this a place—a town?" Dick asked, doubtfully.

"I don't wonder that you asked, Dick," laughed his uncle. "Yes, this is Raven Brook, and here is Jake waiting for us. How are you Jake?" he cried to the bronzed woodsman before them. "This is my nephew, Dick Sherman. Just now he knows more about books than he does about trees, but we are going to change all that.

Jake will be the best teacher you can find, Dick. He will teach you some of the lessons that are not found in books. Don't be ashamed to ask any time you hear a term used that you do not understand. That is the best way to learn—pitch right in and find out. What Jake doesn't know about the woods isn't worth knowing. You've lived in the woods nearly all your life, haven't you, Jake?"

The big fellow laughed with pleasure, holding out his hand to Dick.

He then took the satchels in his hands, and led the way to the rear of the platform.

The wagon that was awaiting them was in reality merely two oilcloth covered seats, lashed to a mud-caked running gear, with wheels very far apart. It didn't look as if it could possibly hold together, and Dick pictured the wheels coming off, leaving the seats somewhere by the roadside. But he climbed in after his uncle.

After Jake had tied the luggage firmly to the back of the strange looking wagon, he began winding cords around Mr. Houston and the boy, fastening them securely to the back of the seat.

"Feel like a baby in a baby-carriage?" he

chuckled. "Don't they ever tie folks in where you come from?"

"Not when they are more than four years old," answered Dick, laughing.

"Well, you'll be very glad of that rope later, I can tell you!"

Jumping in, he gathered the lines into his hands and started.

Dick could see no use at all in being tied into the wagon with a rope. But after they had been creaking for some time along the red clay of the level roads, they suddenly turned into a narrow path, and Jake shouted:

"Now, Mr. Dick Sherman, we are off for the woods."

And they were off, as Dick soon found, on a roadway differing widely from the New York boulevards.

First, there was the mud. The heavy wagon splashed the ferns and brush beside the path. Mud caked on the wheels, the harness, and the horses.

Then came huge rocks, which jutted into the road, and over which one wheel heaved, only to drop into the mud with a great splash. Dick

and Uncle Alf shot from one end of the seat to the other, and Jake called:

“How about that rope now, my lad?”

“It’s all—right! I—never—could—stick—in—without—it!” panted Dick.

After this followed a new sensation.

They were out of the mud and bump, bump, bump, they went over a stretch of road made by placing even-sized tree trunks close together, across the road. This motion was far worse than the others.

“What do you call this?” gasped Dick, his voice being shaken out of him by the jar of the wagon.

“This is a corduroy road, son,” answered Jake, enjoying the boy’s distress. “Have you any of these roads in New York State?”

“I—hope—n-n-n-o-t!”

It was getting late and Dick was hungry. He wondered whether they ever would reach McGregor Lake. But he made no complaint.

As they drove on, his uncle called attention to the gigantic pines—straight as arrows—which towered over their heads. Dick had never seen such trees!



"That is where we get our masts for ships, Dick, and our telegraph poles," Mr. Houston remarked proudly. "You have no handsomer trees than those—even in your state."

"No, sir. They are the biggest ones I have ever seen."

They had now jogged far into the forest, churning through more mud and over more boulders. Dusk was gathering and it was very still. Far off Dick could hear voices and snatches of song, while the faint odor of a fire drifted toward them.

"It's the camp, Dick," Mr. Houston said. "I am sure you are glad. I am! Do you think you can eat a potato and a piece of bacon?"

"I think I can eat two potatoes," returned the boy.

"They might find two for you," chuckled Jake.

Meanwhile the voices came nearer, and in a moment the horses stood beside a group of rough pine shanties, on the shore of a large lake. Many men hurried hither and thither, greeting Mr. Houston, nodding to Dick, untying the travelers and their luggage, and unharnessing the horses. Then Dick followed his uncle into a small cabin.

At one end of the little cabin was a platform

slanting toward the center of the room, and this was covered thickly with fresh pine boughs.

"That's our bunk, lad."

Dick nodded. If his uncle had said that they were to sleep standing upright, he believed he could have done so.

This certainly was real camping! Already he was anxious to be free of his city suit and inside some of the rougher clothes that were in a box in the corner. But his uncle hurried him off to the cookhouse. Here on a long wooden table built crudely of timber and surrounded by long benches, Dick found a tin plate, a fork, a dipper, and a tin spoon. By the light of a lantern, he ate two large potatoes, heaped about with slices of sizzling bacon.

Then he remembered vaguely about dipping water from a bucket into a tin basin on a shelf outside the cabin door; bathing sleepily; tumbling into woolen pajamas; and then rolling himself in the coarse blankets upon the pine boughs. From somewhere there came dancing firelight and the crackling of logs. Then, amid the great silence of the forest, even this noise ceased, and Dick Sherman slept.

PART II

When Dick opened his eyes the next morning, it took him a moment to remember where he was. Then the chilly spring breeze, brought him to his senses. His uncle was already gone.

Dick sprang up. He found the tin basin and the bucket inside the cabin door; and after a dash of cold water, he hurried into his flannel shirt and corduroys. Around his neck he tied a scarlet handkerchief, as he had seen Jake do; and running his leather belt through the case of his hunting-knife, he pulled his sweater over his head, and started for the cookhouse.

Although it was scarcely light, the camp was already astir; and as the boy dropped down on the bench beside his uncle, he was a little ashamed to find that most of the lumbermen had already gone, and that he was the latest comer.

"You did pretty well, my boy," Mr. Houston said. "I hadn't the heart to wake you early after your long ride. Are you black and blue?"

"I didn't stop to look, sir, but I guess not."

Jake grinned, and said, "You'll do, my lad."

After breakfast Mr. Houston said, "Dick, are you ready for a six or eight-mile tramp?"

"Try me."

"We're off, then."

As he rose, Mr. Houston called to the men:

"You fellows get your axes and stuff, and come along."

Drawing on an old slouch hat, he turned down a narrow, beaten trail; and Dick, who trotted behind, noticed that the trees at each side of the trail were notched, or "blazed" at regular intervals.

"I warn you now, Dick," Mr. Houston called over his shoulder as they went along, "never wander away from the blazed trees when you are in the woods. The better a man knows the forest, the more he realizes the danger of getting off the trail. Remember that—it is the biggest law of a woodsman."

Before they had gone far, Dick realized that his uncle certainly merited the title of "woodsman." He covered the ground with a rapid swing and the boy pattered behind him in his moccasins, quite breathless.

Dick found Jake a most interesting companion. He pointed out to the boy the tracks of a raccoon, telling him how that strange little

creature can make himself into a ball when pursued, and roll along the ground to the foot of a tree and then dart up the tree trunk with lightning speed. He told Dick, too, how this animal never eats food that it has not washed, even though it is forced to drag the food a long way in order to reach water.

Dick had not been a week at McGregor Lake, before he was surprised at the ease with which he had dropped into camp life. He made the acquaintance of Lutz, the German cook, and had so entirely won his heart by helping him turn flapjacks, that ever after he was in danger of having his digestion ruined by doughnuts and hot gingerbread.

The cookee, as Lutz's helper was called, was a young boy named Raoul, who was about Dick's own age. Now and then Raoul found leisure to sit outside of the cookhouse door with Dick, and as the two whittled at toy boats or peeled birch bark, Raoul told many a tale of the woods.

But as Raoul had to chop all the fuel for the camp, keep the fires going, clean both the small cabins and the large one where the men

slept on long rows of bunks, bring water and fresh balsam for bedding, and help Lutz prepare meals, he had short hours for play.

Raoul had gathered a fund of knowledge about rivers, hedgehogs, loons, and canoe-making, which astonished Dick, making him feel very ignorant in spite of his years of schooling. On the other hand, however, Dick discovered that he could tell the forest-bred lad stories of warships, motor cars, and airships, none of which Raoul had ever seen.

Dick was pleased to find that there were so many ways in which he could be of use to his uncle. The days were so filled up that they were not half long enough, and when he dropped on the balsam boughs at night, it was only to find that before he knew it, it was morning again.

Gradually spring wore on.

Lumber roads were laid ready for the winter's hauling; maple sugar was boiled for use in the camp; and the buds on the trees ventured forth, clothing the bare forest with a dress of freshest green.

• When the ice was fairly out of the streams,

Dick began to rig his fly rod for trout fishing. Raoul owned a steel rod, and knew every brook that flowed into McGregor Lake; but, much as he loved the sport, he was too busy for long tramps.

"I don't see why I can't go alone, Uncle Alf," said Dick at last, tired of waiting day after day for someone to fish with him. "I know the woods pretty well now, and I would keep near the trail."

"It is never safe for a man to go off by himself in this wilderness, my boy," Mr. Houston answered. "A score of things might happen. You be patient until we finish marking those trees, and then I'll send Jake with you; he deserves a holiday; or, perhaps, I can get away for a trip. I am sure I should like it."

Dick waited, but the day never seemed to come. Mr. Houston and Jake were always wanted for something.

PART III

At last, one afternoon, when the camp was deserted, he could stand it no longer. He came out of the cabin with his rod and basket; and

Raoul, who had heard Mr. Houston's orders, hailed him in astonishment.

"Where on earth are you going, Dick?"

Dick was startled. He had hoped to slip away without being seen.

"Oh, I'm just going up Sherwood way—not far, you know—and I shall not go off the trail. I just want to cast a few times into that brook up there."

"Well, you just better not go wandering off anywhere. You know what your uncle told you."

"I'm not going wandering off—you needn't worry. You all act as if you thought I were a baby three years old."

Dick went on down the trail.

Long, cool shadows, flecked the path, spangling it with dancing patches of shade and sunshine. There was not a sound except the breaking of the twigs under his feet.

He tramped along with the steady even jog that he had learned from those accustomed to the woods, and soon he heard the trickling sound of the brook that crossed Sherwood Trail and slid down toward McGregor Lake. This

was Robin Hood brook, which he had come out to seek.

His plan was to fish up the tiny stream until he reached the place where it forked. He remembered hearing someone say that near there, in a deep pool beneath overhanging rocks, were the largest trout to be found anywhere about.

If he could only catch one of those trout! Off the trail and into the thicket dashed Dick.

At every step he stirred up clouds of flies and insects. Still he followed the brook, wading cheerfully up to his knees in its dancing water, or



jumping from stone to stone. More than once some rock which looked solid tipped, causing him to lose his footing; and many a moss-grown boulder was carpeted with velvet so smooth that the boy was forced to slip back into the stream to retain his balance. To cast a fly was well-nigh impossible, for overhead the trees interlaced, tangling his line upon their swaying branches.

"I'll have to give up casting," he declared at last, as he reeled in the silken cord. "I'll let out only a short line, put a worm on instead of a fly, and see what will happen."

A great speckled four-pounder rose to the wriggling worm the instant it touched the water, and a few moments later lay gasping on the bank.

Dick danced with joy.

This was the sort of thing he had been fretting to do, and see how easy it was. Nothing had happened to him. He was still near the trail. Surely his uncle, who was far too careful of him, would now see how mistaken and silly he had been.

"It isn't as if I had gone far," Dick argued. "I guess he won't mind this little trip. Besides, when I give him these trout for supper tonight

it will be such fun to hear him wonder where they came from."

He put fresh bait on the hook and dropped the line again.

Another trout rose—not quite so large, but a good fish, nevertheless.

He tried farther along the stream, still searching for the famous deep pool.

Occasionally the brook divided; but following each time the larger fork of the stream, Dick sped on.

It was not until he raised his head to listen to a strange noise in the trees that he discovered it was growing dark.

How long had he been fishing, he wondered.

He looked at his watch.

It was seven o'clock!

"Why, I must be miles from McGregor Lake!" he exclaimed. "What on earth will they think has become of me? I shall be awfully late as it is."

As quickly as possible he took his rod apart, then started back down the brook.

But returning was not so easy as he had expected, for he was tired, wet, and hungry, and

twilight gathered fast. Search as he would, he did not reach the trail, and still the darkness came on. In the dim light he stumbled on, creeping at a snail's pace lest he lose his footing.

Then suddenly terror came upon him—he could no longer see!

If he could but keep to the brook, following its sound, he would come out on McGregor Lake, a few miles to the west of the camp. So he struggled on, the trickling of the stream being his only guide.

Then entirely without warning, he stepped off the edge of something high, crashed on the rock below, and knew nothing more!

* * * * *

When he came to himself, a great flickering glare blazed among the trees. Then out of the vagueness came voices—Jake's voice. His face was wet and they were bending over him.

"We've found you, laddie, thank heaven! Are you hurt?"

Then someone lifted him—oh, so gently, steadying him with a strong arm. That was Jake. They lifted him carefully to Jake's arms.



“He is fagged out. I’ll carry him gently and perhaps he may sleep,” said Jake.

So down the trail they went. But tired as Dick was, he could not sleep. The woods were alive with lights that danced to and fro like huge fireflies in the blackness. It was all weird and unreal, and his head ached.

"Are they all hunting for me?" he asked Jake faintly.

"Yes, Dick. They are all out. The boss couldn't stop them," answered Jake.

The boy was silent for a while.

"What time is it?" he asked at last. "How long have they been hunting?"

"It's nearly one o'clock now," Jake replied. "We began searching the woods about seven."

"So you have all been tramping most of the night! And the men are so tired when they knock off work! Oh, Jake!"

"You're worth it, lad. Thank heaven, Raoul could give us some idea where you went," was all Jake said. Even Mr. Houston, who with pale face and torn clothing, overtook the party on the down trail, had no word of reproach for Dick, and none was needed. The exhausted, scarred searching parties that came straggling back to McGregor were rebuke enough.

"You won't see me venturing off by myself again, Uncle Alf, or getting away from the trail, either. I am sorry, sir."

—Sara Ware Bassett
(Abridged)

